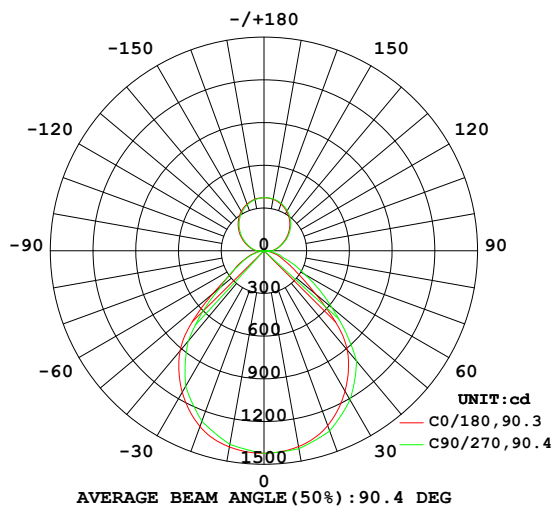


LUMINAIRE PHOTOMETRIC TEST REPORT

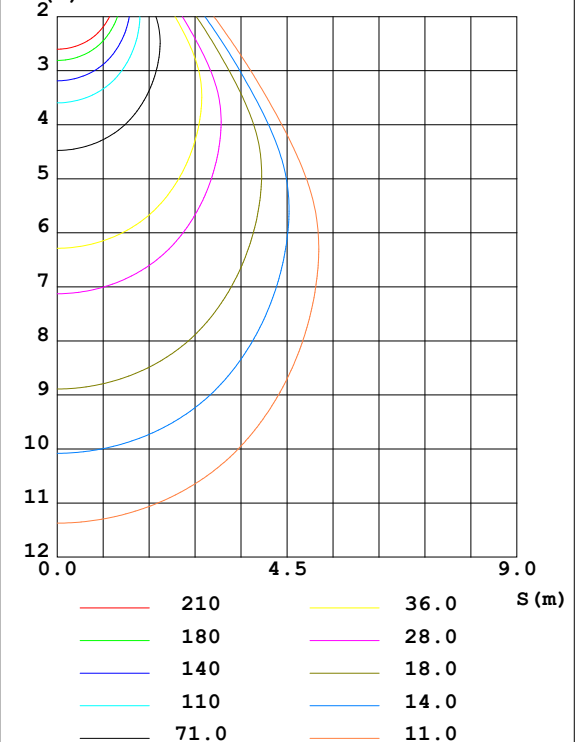
Test:U:220.6V I:0.1704A P:37.61W PF:0.9766 Freq:49.80Hz Lamp Flux:4060.71x1 lm		
NAME: SUGAR 450-U-36W-840	TYPE:Ceiling light	WEIGHT:
SPEC.:4000K	DIM.: ϕ 450mm*H78mm	SERIAL No.:
MFR.: NEKO LIGHTING AG	SUR.: ϕ 450mm	Shielding Angle:

DATA OF LAMP		PHOTOMETRIC DATA Eff: 107.97 lm/W			
MODEL	OSRAM-4000K	I _{max} (cd)	1422	S/MH (C0/180)	1.20
NOMINAL POWER (W)	38	LOR (%)	100.0	S/MH (C90/270)	1.16
RATED VOLTAGE (V)	220.0	TOTAL FLUX (lm)	4060.7	η UP, DN (C0-180)	15.2, 37.6
NOMINAL FLUX (lm)	4060.71	CIE CLASS	SEMI-D.	η UP, DN (C180-360)	14.5, 32.7
LAMPS INSIDE	1	η up (%)	29.7	CIBSE SHR NOM	1.25
TEST VOLTAGE (V)	220.0	η down (%)	70.3	CIBSE SHR MAX	1.30

LUMINOUS INTENSITY DISTRIBUTION DIAGRAM



C0 PLANE ISOLUX DIAGRAM (UNIT:lx)



C Range: 0 - 360DEG
C Interval: 5.0DEG
Test Speed: MEDIUM
Temperature: 25.3DEG
Operators: Jason
Test Date: 2019-11-27

γ Range: 0 - 180DEG
 γ Interval: 0.5DEG
Test System: EVERFINE GO-2000_V1 SYSTEM V2.0.362
Humidity: 65.0%
Test Distance: 5.850m [K=1.7094]
Remarks:

ZONAL FLUX DIAGRAM

ZONAL FLUX DIAGRAM:

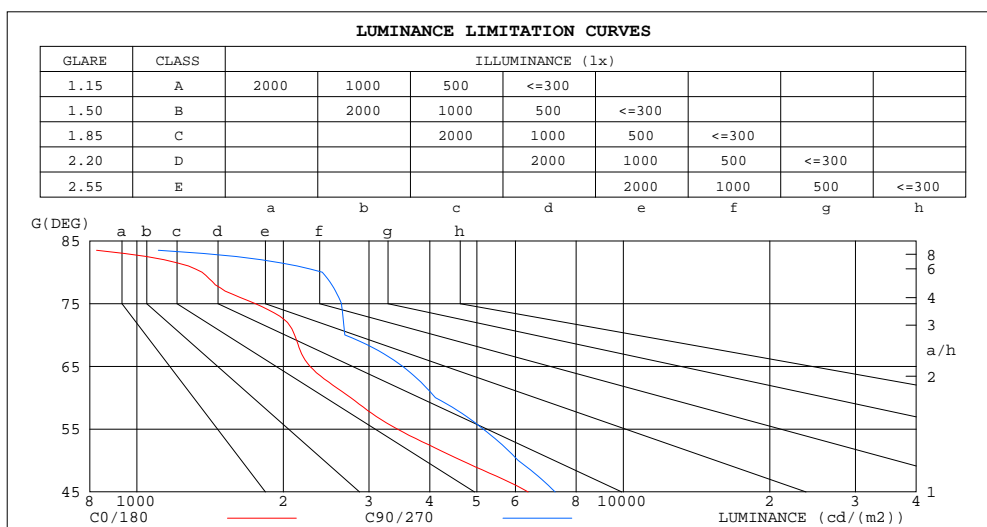
γ	C0	C45	C90	C135	C180	C225	C270	C315	γ	Φ zone	Φ total	$\%lum, lamp$
10	1396	1403	1411	1402	1399	1378	1381	1382	0- 10	134.1	134.1	3.3,3.3
20	1307	1334	1347	1323	1314	1270	1274	1280	10- 20	382.6	516.7	12.7,12.7
30	1138	1188	1209	1178	1148	1105	1100	1100	20- 30	566.7	1083	26.7,26.7
40	909.7	983.4	1011	967.7	917.2	855.0	827.4	844.6	30- 40	645.8	1729	42.6,42.6
50	474.6	562.5	621.0	578.8	467.0	428.5	395.2	386.4	40- 50	543.6	2273	56,56
60	218.7	304.9	326.6	261.7	222.0	212.3	202.0	197.2	50- 60	314.1	2587	63.7,63.7
70	114.7	146.0	145.5	130.7	115.1	103.8	100.6	98.24	60- 70	168.5	2755	67.9,67.9
80	37.58	66.57	66.39	55.37	38.34	25.50	19.03	24.90	70- 80	82.88	2838	69.9,69.9
90	53.11	56.92	57.04	52.92	50.86	48.22	48.57	47.83	80- 90	14.68	2853	70.3,70.3
100	89.11	93.86	93.49	91.31	88.16	84.46	82.07	83.03	90-100	75.78	2929	72.1,72.1
110	131.2	136.8	137.9	134.2	131.2	126.3	122.0	124.4	100-110	114.9	3044	75,75
120	181.4	187.8	189.9	185.9	181.5	175.2	170.9	174.5	110-120	153.7	3197	78.7,78.7
130	233.0	239.4	241.6	237.9	232.9	226.5	222.7	226.1	120-130	185.2	3383	83.3,83.3
140	280.1	286.0	288.2	285.0	280.2	274.3	270.8	273.9	130-140	198.3	3581	88.2,88.2
150	319.6	324.6	326.5	323.9	319.9	314.9	312.2	314.7	140-150	188.2	3769	92.8,92.8
160	349.2	352.9	354.2	352.6	349.5	345.8	344.0	345.8	150-160	154.8	3924	96.6,96.6
170	367.3	369.1	370.1	369.1	367.8	365.7	364.8	365.8	160-170	101.6	4025	99.1,99.1
180	373.0	373.0	373.0	373.0	373.0	373.0	373.0	373.0	170-180	35.35	4061	100,100
DEG	LUMINOUS INTENSITY:cd									UNIT:lm		

C Range: 0 - 360DEG
C Interval: 5.0DEG
Test Speed: MEDIUM
Temperature:25.3DEG
Operators:Jason
Test Date:2019-11-27

γ Range: 0 - 180DEG
 γ Interval: 0.5DEG
Test System:EVERFINE GO-2000_V1 SYSTEM V2.0.362
Humidity:65.0%
Test Distance:5.850m [K=1.7094]
Remarks:

LUMINANCE LIMITATION CURVES

Test:U:220.6V I:0.1704A P:37.61W PF:0.9766 Freq:49.80Hz Lamp Flux:4060.71x1 lm		
NAME: SUGAR 450-U-36W-840	TYPE:Ceiling light	WEIGHT:
SPEC.:4000K	DIM.: ϕ 450mm*H78mm	SERIAL No.:
MFR.: NEKO LIGHTING AG	SUR.: ϕ 450mm	Shielding Angle:



LUMINANCE cd/(m2)		
G(DEG)	C0/180	C90/270
85	383	0
80	1362	2405
75	1750	2634
70	2110	2677
65	2268	3517
60	2751	4109
55	3430	5150
50	4644	6077
45	6372	7239

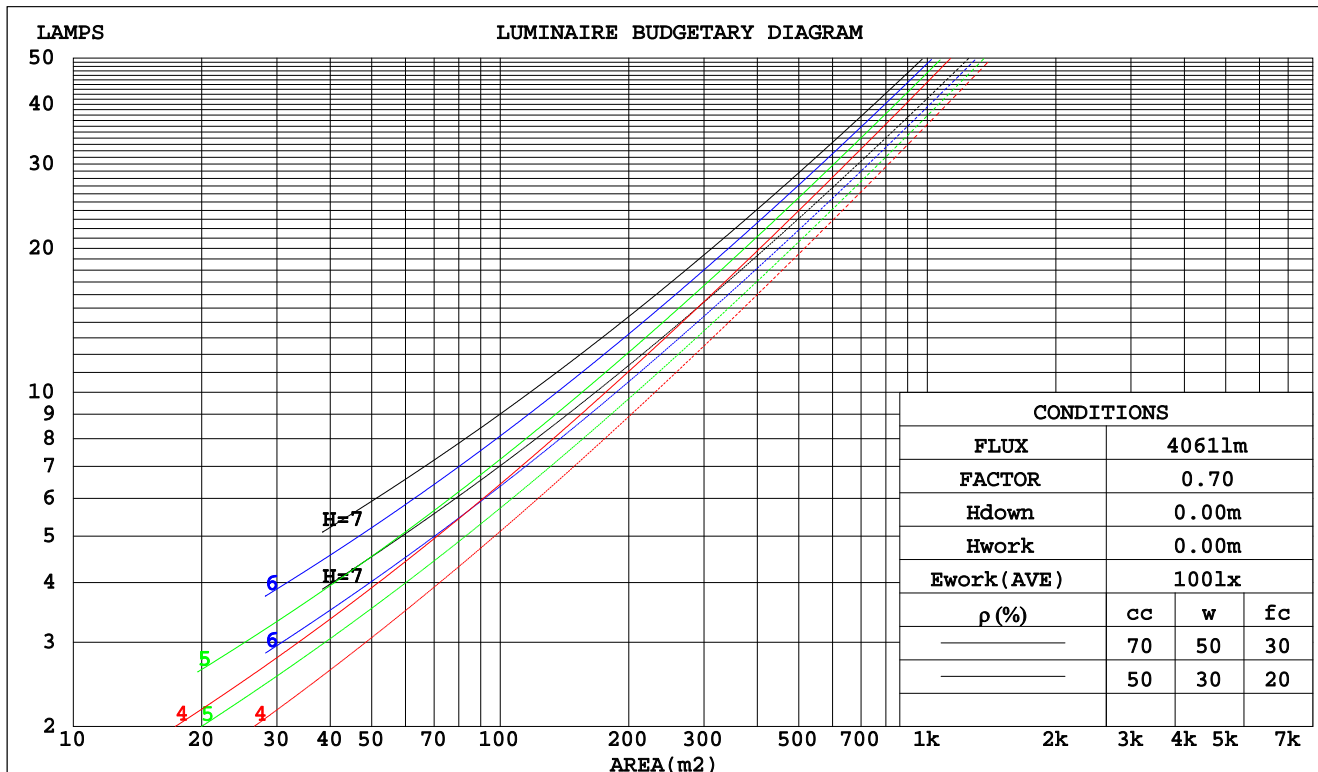
C Range: 0 - 360DEG
C Interval: 5.0DEG
Test Speed: MEDIUM
Temperature:25.3DEG
Operators:Jason
Test Date:2019-11-27

γ Range: 0 - 180DEG
 γ Interval: 0.5DEG
Test System:EVERFINE GO-2000_V1 SYSTEM V2.0.362
Humidity:65.0%
Test Distance:5.850m [K=1.7094]
Remarks:

CU AND LUMINAIRE BUDGETARY ESTIMATE DIAGRAM

Test:U:220.6V I:0.1704A P:37.61W PF:0.9766 Freq:49.80Hz Lamp Flux:4060.71x1 lm		
NAME: SUGAR 450-U-36W-840	TYPE:Ceiling light	WEIGHT:
SPEC.:4000K	DIM.: ϕ 450mm*H78mm	SERIAL No.:
MFR.: NEKO LIGHTING AG	SUR.: ϕ 450mm	Shielding Angle:

pcc	80%			70%			50%			30%			10%			0
pw	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	0
pfc	20%			20%			20%			20%			20%			0
RCR	RCR:Room Cavity Ratio						Coefficients of Utilization(CU)									
0.0	1.12	1.12	1.12	1.06	1.06	1.06	.95	.95	.95	.84	.84	.84	.75	.75	.75	.70
1.0	.00	.96	.93	.95	.92	.89	.85	.83	.81	.76	.75	.73	.68	.67	.66	.62
2.0	.89	.83	.78	.84	.79	.75	.76	.72	.69	.69	.66	.63	.62	.60	.58	.54
3.0	.79	.72	.67	.75	.69	.64	.68	.64	.60	.62	.58	.55	.56	.53	.51	.47
4.0	.71	.64	.58	.68	.61	.56	.62	.56	.52	.56	.52	.48	.51	.47	.45	.42
5.0	.64	.56	.51	.61	.54	.49	.56	.50	.46	.51	.46	.43	.46	.43	.40	.37
6.0	.58	.50	.45	.56	.49	.43	.51	.45	.41	.47	.42	.38	.42	.39	.36	.33
7.0	.53	.45	.40	.51	.44	.39	.47	.41	.36	.43	.38	.34	.39	.35	.32	.30
8.0	.48	.41	.36	.46	.40	.35	.43	.37	.33	.39	.34	.31	.36	.32	.29	.27
9.0	.45	.37	.32	.43	.36	.31	.40	.34	.30	.36	.32	.28	.34	.29	.26	.25
10.0	.41	.34	.29	.40	.33	.29	.37	.31	.27	.34	.29	.26	.31	.27	.24	.22



C Range: 0 - 360DEG
C Interval: 5.0DEG
Test Speed: MEDIUM
Temperature:25.3DEG
Operators:Jason
Test Date:2019-11-27

γ Range: 0 - 180DEG
 γ Interval: 0.5DEG
Test System:EVERFINE GO-2000_V1 SYSTEM V2.0.362
Humidity:65.0%
Test Distance:5.850m [K=1.7094]
Remarks:

WEC AND CCEC

Test:U:220.6V I:0.1704A P:37.61W PF:0.9766 Freq:49.80Hz Lamp Flux:4060.71x1 lm		
NAME: SUGAR 450-U-36W-840	TYPE:Ceiling light	WEIGHT:
SPEC.:4000K	DIM.: ϕ 450mm*H78mm	SERIAL No.:
MFR.: NEKO LIGHTING AG	SUR.: ϕ 450mm	Shielding Angle:

pcc	80%			70%			50%			30%			10%			0	
pw	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	0	
pfc	20%			20%			20%			20%			20%			0	
RCR	RCR:Room Cavity Ratio						Wall Exitance Coefficients(WEC)										
0.0																	
1.0	.251	.143	.045	.235	.134	.043	.205	.118	.038	.178	.103	.033	.153	.089	.029		
2.0	.239	.131	.040	.225	.124	.038	.198	.110	.034	.173	.097	.030	.150	.085	.027		
3.0	.225	.119	.036	.212	.113	.034	.187	.101	.031	.165	.090	.028	.144	.080	.025		
4.0	.210	.109	.032	.199	.104	.031	.176	.094	.028	.156	.084	.025	.137	.074	.023		
5.0	.197	.100	.029	.186	.096	.028	.166	.086	.025	.147	.078	.023	.129	.069	.021		
6.0	.185	.093	.027	.175	.088	.025	.156	.080	.023	.139	.072	.021	.123	.065	.019		
7.0	.174	.086	.024	.165	.082	.023	.148	.075	.021	.131	.067	.020	.116	.060	.018		
8.0	.164	.080	.022	.155	.077	.022	.139	.070	.020	.124	.063	.018	.110	.057	.016		
9.0	.155	.075	.021	.147	.072	.020	.132	.065	.019	.118	.059	.017	.105	.053	.015		
10.0	.146	.070	.019	.139	.067	.019	.125	.061	.017	.112	.056	.016	.100	.050	.014		

pcc	80%			70%			50%			30%			10%			0
pw	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	0
pfc	20%			20%			20%			20%			20%			0
RCR	RCR:Room Cavity Ratio						Ceiling Cavity Exitance Coefficients(CCEC)									
0.0	.417	.417	.417	.356	.356	.356	.243	.243	.243	.140	.140	.140	.045	.045	.045	
1.0	.405	.385	.367	.346	.331	.316	.237	.227	.219	.136	.132	.127	.044	.042	.041	
2.0	.395	.362	.334	.338	.312	.289	.232	.216	.202	.134	.125	.118	.043	.041	.039	
3.0	.387	.345	.312	.332	.298	.270	.228	.207	.190	.132	.121	.112	.042	.039	.037	
4.0	.380	.332	.296	.326	.287	.257	.224	.200	.181	.130	.117	.107	.042	.038	.035	
5.0	.373	.322	.285	.320	.279	.248	.220	.195	.175	.128	.114	.104	.041	.037	.034	
6.0	.366	.314	.277	.315	.272	.241	.217	.191	.171	.126	.112	.101	.041	.037	.034	
7.0	.360	.308	.271	.310	.267	.236	.214	.187	.167	.124	.110	.100	.040	.036	.033	
8.0	.355	.302	.266	.305	.262	.232	.211	.184	.165	.123	.109	.098	.040	.036	.032	
9.0	.349	.298	.263	.301	.258	.229	.209	.182	.163	.122	.107	.097	.039	.035	.032	
10.0	.345	.294	.260	.297	.255	.227	.206	.179	.161	.120	.106	.096	.039	.035	.032	

C Range: 0 - 360DEG
C Interval: 5.0DEG
Test Speed: MEDIUM
Temperature:25.3DEG
Operators:Jason
Test Date:2019-11-27

γ Range: 0 - 180DEG
 γ Interval: 0.5DEG
Test System:EVERFINE GO-2000_V1 SYSTEM V2.0.362
Humidity:65.0%
Test Distance:5.850m [K=1.7094]
Remarks:

UGR(Unified Glare Rating) Table

Test:U:220.6V I:0.1704A P:37.61W PF:0.9766 Freq:49.80Hz Lamp Flux:4060.71x1 lm										
NAME: SUGAR 450-U-36W-840					TYPE:Ceiling light			WEIGHT:		
SPEC.:4000K					DIM.: ϕ 450mm*H78mm			SERIAL No.:		
MFR.: NEKO LIGHTING AG					SUR.: ϕ 450mm			Shielding Angle:		
ceiling/cavity	0.7	0.7	0.5	0.5	0.3	0.7	0.7	0.5	0.5	0.3
walls	0.5	0.3	0.5	0.3	0.3	0.5	0.3	0.5	0.3	0.3
working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
Room dimensions	Viewed crosswise					Viewed endwise				
x = 2H y = 2H	10.6	11.6	11.2	12.3	13.0	11.8	12.9	12.5	13.5	14.2
3H	11.0	11.9	11.7	12.6	13.3	12.3	13.2	12.9	13.9	14.6
4H	11.1	12.0	11.8	12.7	13.5	12.4	13.3	13.1	14.0	14.8
6H	11.2	12.0	11.9	12.7	13.5	12.6	13.4	13.3	14.1	14.9
8H	11.2	11.9	11.9	12.6	13.5	12.6	13.3	13.3	14.0	14.9
12H	11.1	11.8	11.8	12.5	13.4	12.5	13.2	13.2	14.0	14.8
4H 2H	10.8	11.7	11.5	12.4	13.2	11.9	12.7	12.5	13.4	14.2
3H	11.4	12.1	12.1	12.8	13.7	12.5	13.2	13.2	13.9	14.8
4H	11.6	12.3	12.4	13.0	13.9	12.7	13.4	13.5	14.1	15.0
6H	11.8	12.3	12.5	13.1	14.0	13.0	13.6	13.8	14.3	15.2
8H	11.8	12.3	12.6	13.1	14.0	13.0	13.5	13.8	14.3	15.3
12H	11.7	12.2	12.5	13.0	13.9	13.0	13.4	13.8	14.2	15.2
8H 4H	11.7	12.2	12.5	13.0	14.0	12.7	13.3	13.5	14.0	15.0
6H	12.0	12.4	12.8	13.2	14.2	13.1	13.5	13.9	14.3	15.3
8H	12.0	12.4	12.9	13.2	14.2	13.2	13.5	14.0	14.4	15.4
12H	12.0	12.3	12.9	13.2	14.2	13.1	13.4	14.0	14.3	15.3
12H 4H	11.7	12.2	12.5	13.0	13.9	12.7	13.2	13.5	14.0	14.9
6H	12.0	12.4	12.8	13.2	14.2	13.1	13.4	13.9	14.3	15.3
8H	12.1	12.4	12.9	13.2	14.3	13.2	13.5	14.0	14.3	15.4
Variations with the observer position at spacings:										
S = 1.0H	+ 0.8 / - 0.8					+ 0.4 / - 0.4				
1.5H	+ 0.5 / - 0.8					+ 0.3 / - 0.4				
2.0H	+ 1.8 / - 1.5					+ 1.2 / - 1.5				

CIE Pub.117, 4061 lm Total Lamp Luminous Flux Correct ($8\log(F/F_0) = 4.9$)

C Range: 0 - 360DEG
C Interval: 5.0DEG
Test Speed: MEDIUM
Temperature:25.3DEG
Operators:Jason
Test Date:2019-11-27

γ Range: 0 - 180DEG
 γ Interval: 0.5DEG
Test System:EVERFINE GO-2000_V1 SYSTEM V2.0.362
Humidity:65.0%
Test Distance:5.850m [K=1.7094]
Remarks:

UTILIZATION FACTORS TABLE

Test:U:220.6V I:0.1704A P:37.61W PF:0.9766 Freq:49.80Hz Lamp Flux:4060.71x1 lm		
NAME: SUGAR 450-U-36W-840	TYPE:Ceiling light	WEIGHT:
SPEC.:4000K	DIM.: ϕ 450mm*H78mm	SERIAL No.:
MFR.: NEKO LIGHTING AG	SUR.: ϕ 450mm	Shielding Angle:

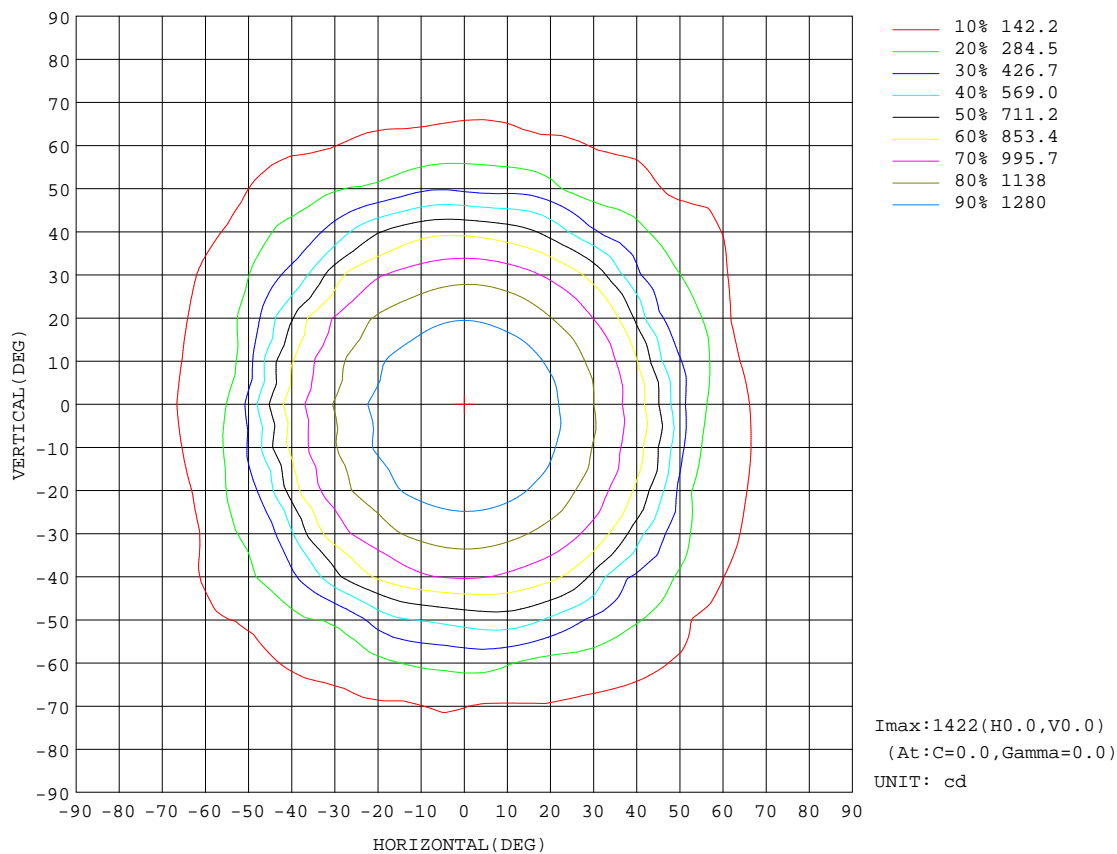
REFLECTANCE										
Ceiling	0.8	0.8	0.8	0.7	0.7	0.7	0.5	0.5	0.5	0
Walls	0.7	0.5	0.3	0.7	0.5	0.3	0.7	0.5	0.3	0
Working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0
ROOM INDEX	UTILIZATION FACTORS(PERCENT) $k(RI) \times RCR = 5$									
$k = 0.60$	56	46	40	54	45	39	51	43	38	32
0.80	65	55	49	63	54	48	59	51	46	38
1.00	73	63	56	70	61	55	65	59	53	44
1.25	79	70	64	76	68	62	71	64	59	49
1.50	84	75	69	81	73	67	74	68	63	52
2.00	90	82	76	86	79	74	79	74	69	56
2.50	94	86	81	89	83	78	81	77	73	58
3.00	97	90	85	92	86	82	84	79	76	60
4.00	100	95	90	95	91	87	86	83	80	63
5.00	102	98	94	97	93	90	88	85	82	64
ROOM INDEX	UF(total)									Direct
According to DIN EN 13032-2 2004			Suspended					SHRNOM = 1.25		

C Range: 0 - 360DEG
C Interval: 5.0DEG
Test Speed: MEDIUM
Temperature:25.3DEG
Operators:Jason
Test Date:2019-11-27

γ Range: 0 - 180DEG
 γ Interval: 0.5DEG
Test System:EVERFINE GO-2000_V1 SYSTEM V2.0.362
Humidity:65.0%
Test Distance:5.850m [K=1.7094]
Remarks:

ISOCANDELA DIAGRAM

Test:U:220.6V I:0.1704A P:37.61W PF:0.9766 Freq:49.80Hz Lamp Flux:4060.71x1 lm		
NAME: SUGAR 450-U-36W-840	TYPE:Ceiling light	WEIGHT:
SPEC.:4000K	DIM.: ϕ 450mm*H78mm	SERIAL No.:
MFR.: NEKO LIGHTING AG	SUR.: ϕ 450mm	Shielding Angle:

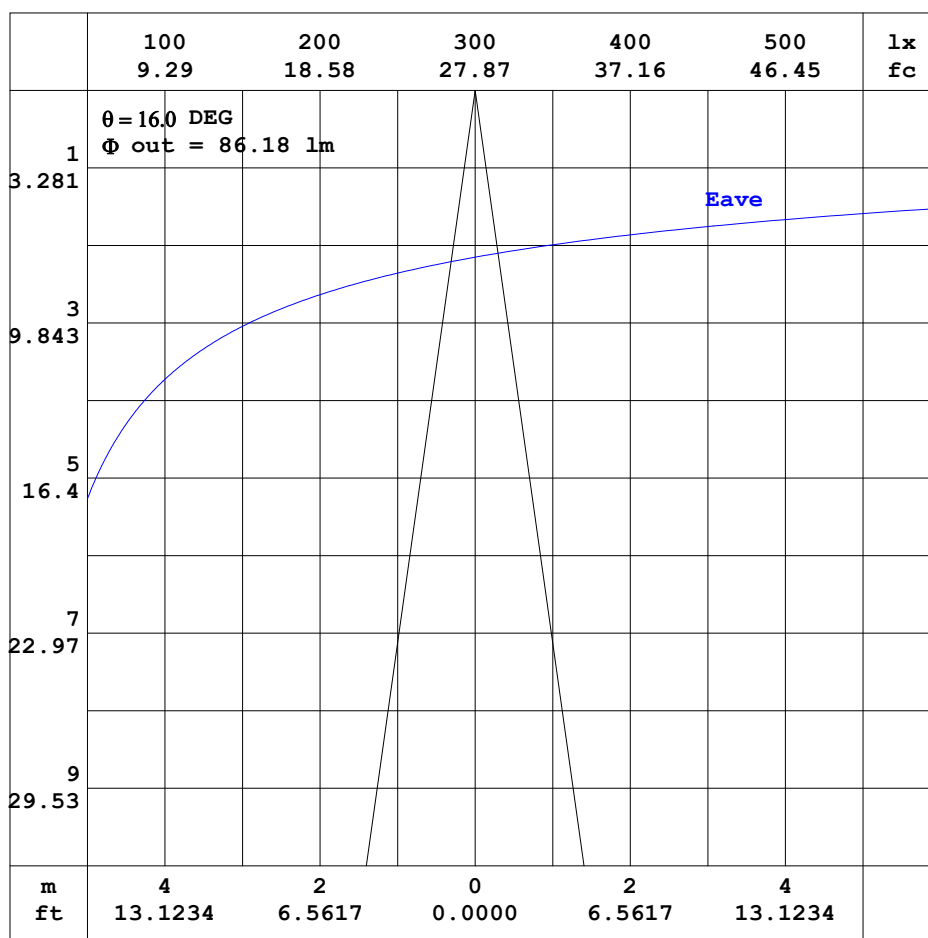


C Range: 0 - 360DEG
C Interval: 5.0DEG
Test Speed: MEDIUM
Temperature:25.3DEG
Operators:Jason
Test Date:2019-11-27

γ Range: 0 - 180DEG
 γ Interval: 0.5DEG
Test System:EVERFINE GO-2000_V1 SYSTEM V2.0.362
Humidity:65.0%
Test Distance:5.850m [K=1.7094]
Remarks:

AAI CURVES

Test:U:220.6V I:0.1704A P:37.61W PF:0.9766 Freq:49.80Hz Lamp Flux:4060.71x1 lm		
NAME: SUGAR 450-U-36W-840	TYPE:Ceiling light	WEIGHT:
SPEC.:4000K	DIM.: ϕ 450mm*H78mm	SERIAL No.:
MFR.: NEKO LIGHTING AG	SUR.: ϕ 450mm	Shielding Angle:



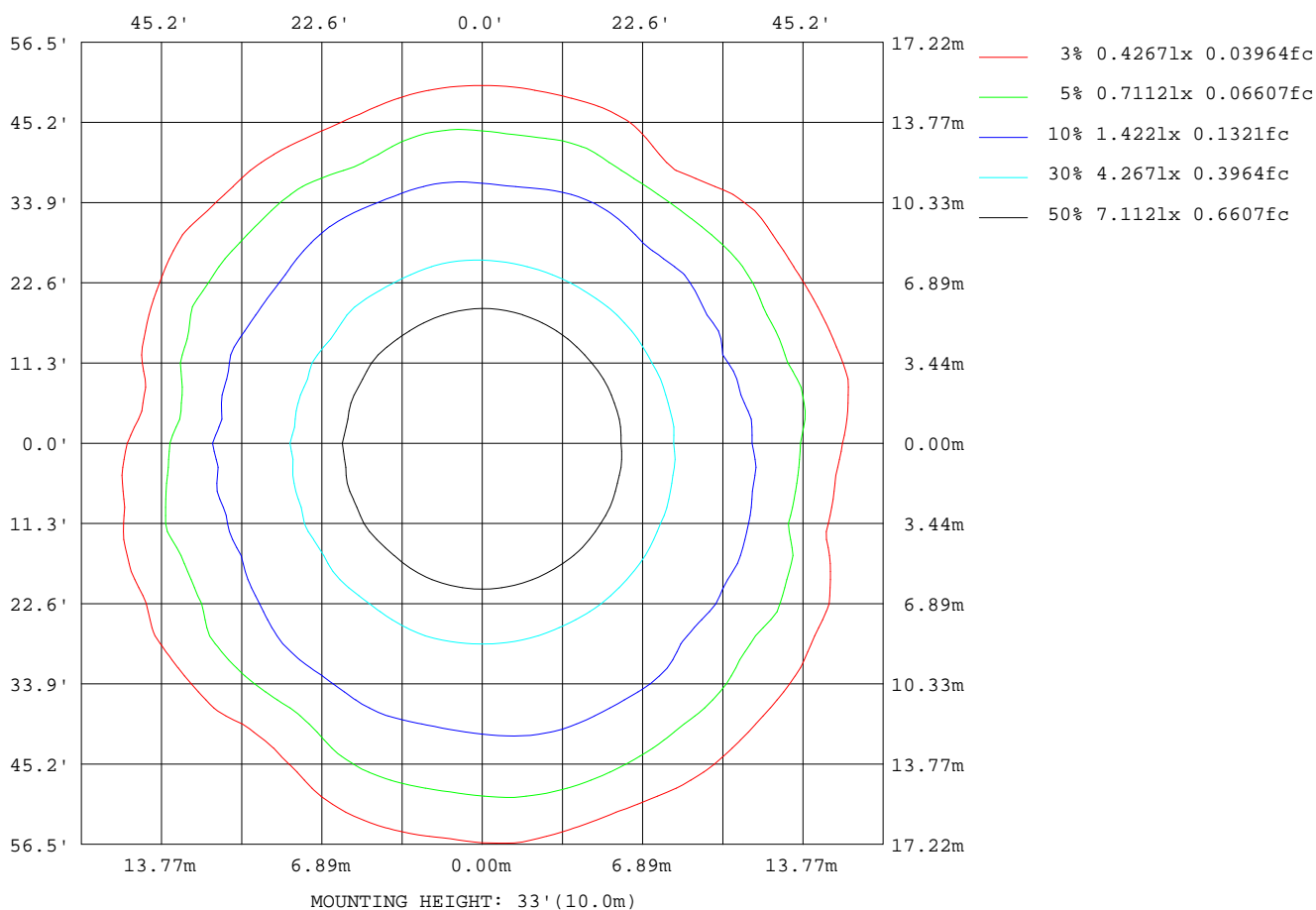
Note:The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

C Range: 0 - 360DEG
C Interval: 5.0DEG
Test Speed: MEDIUM
Temperature:25.3DEG
Operators:Jason
Test Date:2019-11-27

γ Range: 0 - 180DEG
 γ Interval: 0.5DEG
Test System:EVERFINE GO-2000_V1 SYSTEM V2.0.362
Humidity:65.0%
Test Distance:5.850m [K=1.7094]
Remarks:

ISOLUX DIAGRAM

Test:U:220.6V I:0.1704A P:37.61W PF:0.9766 Freq:49.80Hz Lamp Flux:4060.71x1 lm		
NAME: SUGAR 450-U-36W-840	TYPE:Ceiling light	WEIGHT:
SPEC.:4000K	DIM.: ϕ 450mm*H78mm	SERIAL No.:
MFR.: NEKO LIGHTING AG	SUR.: ϕ 450mm	Shielding Angle:



C Range: 0 - 360DEG
C Interval: 5.0DEG
Test Speed: MEDIUM
Temperature:25.3DEG
Operators:Jason
Test Date:2019-11-27

γ Range: 0 - 180DEG
 γ Interval: 0.5DEG
Test System:EVERFINE GO-2000_V1 SYSTEM V2.0.362
Humidity:65.0%
Test Distance:5.850m [K=1.7094]
Remarks:

LED Avg.L Report

Test:U:220.6V I:0.1704A P:37.61W PF:0.9766 Freq:49.80Hz Lamp Flux:4060.71x1 lm		
NAME: SUGAR 450-U-36W-840	TYPE:Ceiling light	WEIGHT:
SPEC.:4000K	DIM.: φ450mm*H78mm	SERIAL No.:
MFR.: NEKO LIGHTING AG	SUR.:φ450mm	Shielding Angle:

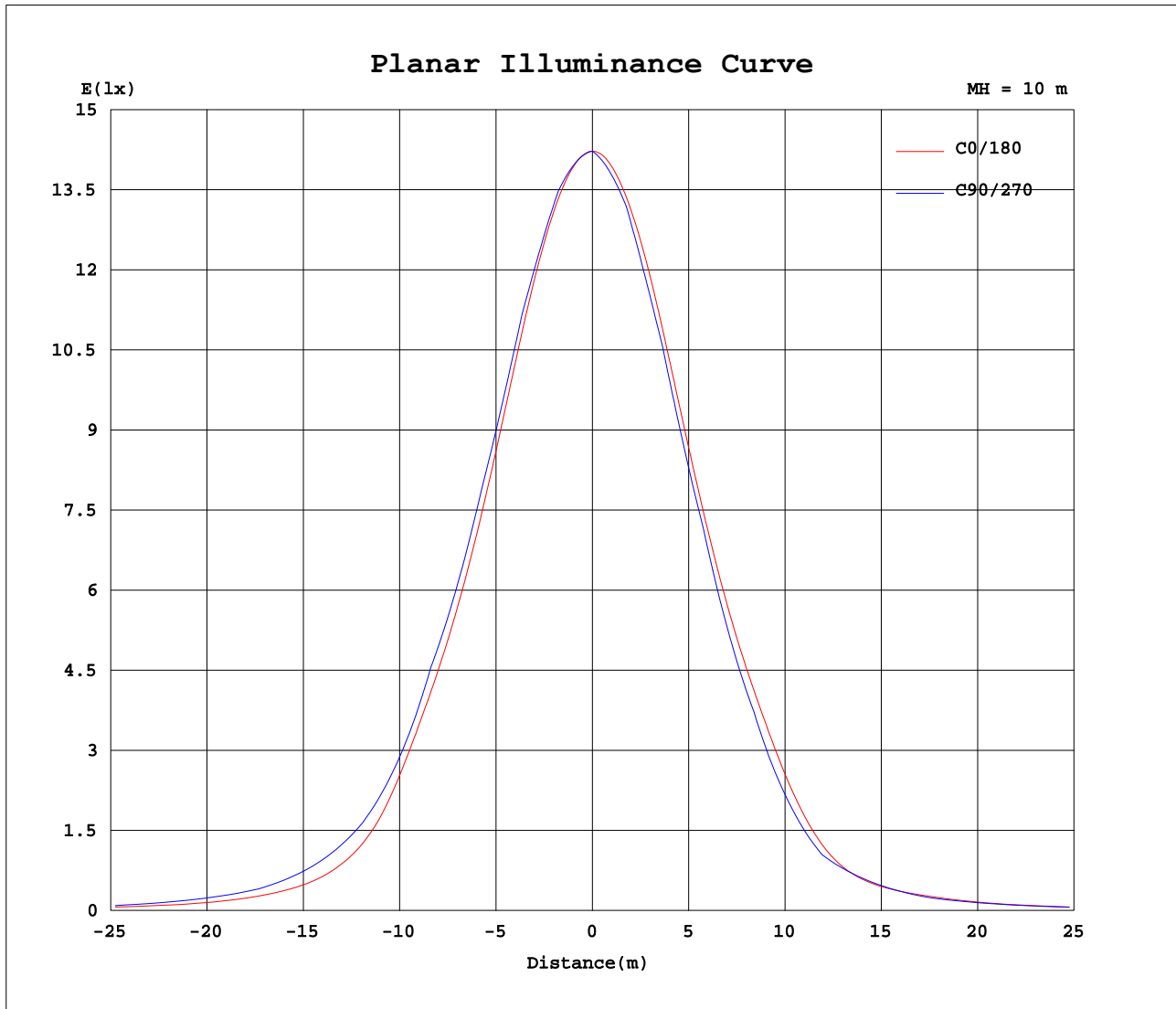
AvgL	cd/m2
L_0~180 (65) av	2322
L_0~180 (75) av	1766
L_0~180 (85) av	397
L_90~270 (65) av	2877
L_90~270 (75) av	2047
L_90~270 (85) av	0
L_45 (65) av	2573
L_45 (75) av	1940
L_45 (85) av	657

Standard: GB/T 29293-2012

C Range: 0 - 360DEG
C Interval: 5.0DEG
Test Speed: MEDIUM
Temperature:25.3DEG
Operators:Jason
Test Date:2019-11-27

γ Range: 0 - 180DEG
γ Interval: 0.5DEG
Test System:EVERFINE GO-2000_V1 SYSTEM V2.0.362
Humidity:65.0%
Test Distance:5.850m [K=1.7094]
Remarks:

Planar Illuminance Curve



C Range: 0 - 360DEG
C Interval: 5.0DEG
Test Speed: MEDIUM
Temperature: 25.3DEG
Operators: Jason
Test Date: 2019-11-27

γ Range: 0 - 180DEG
 γ Interval: 0.5DEG
Test System: EVERFINE GO-2000_V1 SYSTEM V2.0.362
Humidity: 65.0%
Test Distance: 5.850m [K=1.7094]
Remarks:

LUMINOUS DISTRIBUTION INTENSITY DATA

Test:U:220.6V I:0.1704A P:37.61W PF:0.9766 Freq:49.80Hz Lamp Flux:4060.71x1 lm		
NAME: SUGAR 450-U-36W-840	TYPE:Ceiling light	WEIGHT:
SPEC.:4000K	DIM.: φ450mm*H78mm	SERIAL No.:
MFR.: NEKO LIGHTING AG	SUR.:φ450mm	Shielding Angle:

Table--1

UNIT: cd

C (DEG) γ (DEG)	0	5	10	15	20	25	30	35	40	45	50	55	60	65	70	75	80	85	90
0	1422	1422	1422	1422	1422	1422	1422	1422	1422	1422	1422	1422	1422	1422	1422	1422	1422	1422	1422
5	1416	1415	1415	1415	1415	1415	1415	1415	1416	1416	1416	1416	1416	1417	1417	1417	1417	1417	1417
10	1396	1396	1397	1397	1398	1400	1401	1401	1402	1403	1404	1405	1406	1407	1408	1409	1410	1411	1411
15	1362	1363	1365	1368	1371	1371	1373	1374	1377	1377	1377	1378	1378	1379	1379	1379	1379	1379	1379
20	1307	1311	1317	1322	1322	1325	1328	1329	1331	1334	1335	1336	1337	1339	1341	1344	1345	1347	1347
25	1230	1237	1247	1248	1250	1255	1261	1268	1268	1269	1272	1274	1276	1277	1278	1278	1278	1278	1278
30	1138	1149	1159	1158	1163	1174	1179	1180	1183	1188	1193	1196	1196	1197	1199	1201	1204	1207	1209
35	1033	1048	1053	1052	1067	1074	1074	1083	1095	1098	1098	1100	1100	1101	1103	1106	1109	1110	1110
40	910	932	928	938	952	950	962	976	979	983	987	991	990	990	992	998	1004	1009	1011
45	716	769	751	788	779	791	797	804	809	823	833	851	853	847	845	843	837	825	814
50	475	512	507	535	552	573	555	582	564	562	628	659	660	660	667	672	663	643	621
55	313	301	301	292	367	385	410	384	390	425	444	442	452	469	484	495	495	487	470
60	219	211	205	221	245	271	279	302	304	305	312	319	315	301	294	303	318	332	327
65	152	162	163	172	178	175	183	196	221	212	204	203	206	198	199	213	225	233	236
70	115	115	114	121	125	123	126	141	145	146	147	147	145	146	148	142	135	131	146
75	72.0	79.4	80.2	80.0	85.2	91.2	101	99.7	102	107	107	97.1	96.4	103	107	101	97.3	97.7	108
80	37.6	41.8	45.4	47.3	48.0	53.5	51.9	58.5	63.4	66.6	64.1	60.6	62.1	65.6	67.3	64.0	62.7	63.2	66.4
85	5.31	9.16	10.3	12.5	16.8	17.0	19.3	21.2	19.8	17.4	13.2	10.3	8.05	5.99	3.99	2.16	0.95	0.24	0.00
90	53.1	53.9	54.6	55.2	55.7	56.0	56.2	56.5	56.7	56.9	57.0	57.0	57.0	57.0	0.00	0.00	57.0	57.0	57.0
95	70.2	71.2	72.0	72.8	73.3	73.7	74.0	74.3	74.5	74.7	74.8	74.8	74.9	74.8	74.8	74.8	74.9	74.9	74.9
100	89.1	90.1	91.0	91.7	92.3	92.7	93.0	93.3	93.6	93.9	94.0	94.1	94.2	94.3	94.3	94.3	94.0	93.8	93.5
105	109	110	111	112	112	113	113	114	114	115	115	115	115	115	115	115	115	115	114
110	131	132	133	134	135	135	136	136	137	137	137	138	138	138	138	138	138	138	138
115	155	156	157	158	159	160	161	161	161	162	162	163	163	163	163	163	163	163	163
120	181	182	183	184	185	186	187	187	188	188	188	189	190	190	189	189	189	190	190
125	207	208	210	210	212	212	213	214	214	214	215	215	216	216	216	215	216	216	216
130	233	234	235	236	237	238	239	239	239	239	240	241	241	241	241	241	241	241	242
135	257	258	259	260	261	262	263	263	263	264	264	265	265	265	265	265	265	266	266
140	280	281	282	283	284	285	285	286	286	286	287	287	288	288	288	288	288	288	288
145	301	302	303	304	304	305	306	306	306	306	307	308	308	308	308	308	308	308	309
150	320	320	321	322	323	323	324	324	324	325	325	326	326	326	326	326	326	326	326
155	336	336	337	338	338	339	339	340	340	340	340	341	341	341	341	341	341	342	342
160	349	350	350	351	351	352	352	352	353	353	353	354	354	354	354	354	354	354	354
165	360	360	361	361	361	362	362	362	362	363	363	363	363	364	364	364	364	364	364
170	367	368	368	368	368	369	369	369	369	369	369	370	370	370	370	370	370	370	370
175	372	372	372	372	372	372	372	372	372	373	373	373	373	373	373	373	373	373	373
180	373	373	373	373	373	373	373	373	373	373	373	373	373	373	373	373	373	373	373

C Range: 0 - 360DEG
C Interval: 5.0DEG
Test Speed: MEDIUM
Temperature:25.3DEG
Operators:Jason
Test Date:2019-11-27

γ Range: 0 - 180DEG
γ Interval: 0.5DEG
Test System:EVERFINE GO-2000_V1 SYSTEM V2.0.362
Humidity:65.0%
Test Distance:5.850m [K=1.7094]
Remarks:

LUMINOUS DISTRIBUTION INTENSITY DATA

Test:U:220.6V I:0.1704A P:37.61W PF:0.9766 Freq:49.80Hz Lamp Flux:4060.71x1 lm		
NAME: SUGAR 450-U-36W-840	TYPE:Ceiling light	WEIGHT:
SPEC.:4000K	DIM.: φ450mm*H78mm	SERIAL No.:
MFR.: NEKO LIGHTING AG	SUR.:φ450mm	Shielding Angle:

Table--2

UNIT: cd

C (DEG) γ (DEG)	95	100	105	110	115	120	125	130	135	140	145	150	155	160	165	170	175	180	185
0	1422	1422	1422	1422	1422	1422	1422	1422	1422	1422	1422	1422	1422	1422	1422	1422	1422	1422	1422
5	1416	1416	1416	1416	1416	1415	1415	1415	1415	1415	1415	1415	1415	1415	1415	1416	1416	1417	1415
10	1411	1411	1410	1410	1409	1407	1406	1404	1402	1400	1398	1396	1395	1395	1395	1396	1398	1399	1394
15	1379	1378	1378	1377	1377	1377	1377	1378	1380	1381	1376	1370	1365	1361	1360	1361	1364	1367	1359
20	1347	1347	1345	1343	1340	1335	1331	1326	1323	1323	1326	1330	1323	1313	1304	1303	1307	1314	1301
25	1277	1276	1274	1273	1272	1273	1274	1274	1264	1255	1246	1248	1253	1249	1234	1224	1229	1239	1221
30	1209	1207	1202	1197	1191	1184	1177	1175	1178	1185	1174	1160	1155	1161	1154	1134	1136	1148	1125
35	1108	1104	1100	1096	1093	1093	1094	1083	1072	1068	1076	1079	1056	1048	1059	1035	1026	1041	1012
40	1011	1007	1000	991	979	966	956	956	968	961	936	934	952	914	917	918	890	917	872
45	806	805	810	818	823	830	829	801	771	771	773	712	709	719	670	727	664	723	646
50	606	600	607	617	607	584	576	585	579	542	505	484	452	459	457	476	442	467	401
55	457	453	453	449	423	374	341	359	374	381	381	343	335	337	358	327	308	288	251
60	316	317	316	307	290	258	243	249	262	259	252	268	250	252	226	217	222	222	196
65	235	227	217	213	203	186	183	186	185	172	158	167	183	167	145	141	150	160	152
70	157	146	134	142	141	131	130	134	131	127	126	128	135	125	117	114	114	115	103
75	113	102	93.9	98.4	95.7	88.1	87.3	92.9	92.1	88.1	91.2	91.0	85.0	84.1	82.8	77.6	73.5	73.3	70.9
80	69.8	67.4	61.5	61.3	58.6	55.4	55.3	56.1	55.4	52.0	56.1	61.7	51.7	54.0	49.7	41.0	38.2	38.3	32.4
85	0.26	1.02	2.07	3.63	5.33	7.25	9.57	12.0	15.1	16.4	18.0	17.7	14.1	12.7	11.4	7.22	2.73	5.69	1.63
90	57.0	56.7	0.00	0.00	54.9	54.1	53.7	53.3	52.9	52.4	51.9	51.4	51.1	50.8	50.6	50.7	50.8	50.9	50.4
95	74.6	74.2	73.8	73.5	73.3	73.0	72.7	72.3	71.9	71.5	71.1	70.7	70.3	70.0	69.7	69.5	69.3	69.0	68.5
100	93.4	93.3	93.2	93.0	92.7	92.4	92.0	91.7	91.3	90.9	90.5	90.1	89.8	89.4	89.1	88.8	88.5	88.2	87.7
105	114	114	114	114	113	113	113	112	112	112	111	111	110	110	110	109	109	109	108
110	137	137	136	136	136	136	136	135	134	134	134	134	133	133	132	132	132	131	130
115	163	163	162	162	162	162	161	160	159	159	159	159	158	157	156	156	156	156	155
120	189	189	188	188	188	188	187	187	186	186	185	185	184	183	183	182	182	181	181
125	216	215	215	215	215	214	214	213	212	212	212	211	211	210	209	208	208	207	207
130	241	241	240	240	240	240	239	239	238	238	237	237	236	235	234	234	233	233	232
135	265	265	265	265	264	264	264	263	262	262	262	261	261	260	259	258	258	257	257
140	288	288	287	287	287	287	286	286	285	285	284	284	283	282	282	281	281	280	279
145	308	308	308	308	307	307	307	306	306	305	305	305	304	303	302	302	302	301	300
150	326	326	326	326	326	325	325	324	324	324	323	323	322	322	321	321	320	320	319
155	342	341	341	341	341	341	341	340	340	339	339	339	338	338	337	337	336	336	335
160	354	354	354	354	354	354	353	353	353	352	352	352	351	351	350	350	350	350	349
165	364	364	363	363	363	363	363	363	362	362	362	362	361	361	361	361	360	360	360
170	370	370	370	370	370	370	370	369	369	369	369	369	369	368	368	368	368	368	368
175	373	373	373	373	373	373	373	373	373	373	373	373	372	372	372	372	372	372	372
180	373	373	373	373	373	373	373	373	373	373	373	373	373	373	373	373	373	373	373

C Range: 0 - 360DEG
C Interval: 5.0DEG
Test Speed: MEDIUM
Temperature:25.3DEG
Operators:Jason
Test Date:2019-11-27

γ Range: 0 - 180DEG
γ Interval: 0.5DEG
Test System:EVERFINE GO-2000_V1 SYSTEM V2.0.362
Humidity:65.0%
Test Distance:5.850m [K=1.7094]
Remarks:

LUMINOUS DISTRIBUTION INTENSITY DATA

Test:U:220.6V I:0.1704A P:37.61W PF:0.9766 Freq:49.80Hz Lamp Flux:4060.71x1 lm		
NAME: SUGAR 450-U-36W-840	TYPE:Ceiling light	WEIGHT:
SPEC.:4000K	DIM.: ϕ 450mm*H78mm	SERIAL No.:
MFR.: NEKO LIGHTING AG	SUR.: ϕ 450mm	Shielding Angle:

Table--3

UNIT: cd

C (DEG) γ (DEG)	190	195	200	205	210	215	220	225	230	235	240	245	250	255	260	265	270	275	280
0	1422	1422	1422	1422	1422	1422	1422	1422	1422	1422	1422	1422	1422	1422	1422	1422	1422	1422	1422
5	1413	1411	1409	1408	1407	1405	1404	1404	1403	1402	1402	1402	1401	1401	1401	1401	1401	1402	1402
10	1390	1386	1383	1381	1378	1378	1378	1378	1379	1379	1380	1380	1380	1381	1381	1381	1381	1381	1380
15	1351	1345	1341	1342	1343	1345	1347	1342	1337	1333	1330	1328	1327	1327	1326	1327	1327	1328	1329
20	1290	1283	1286	1290	1292	1282	1275	1270	1268	1268	1269	1270	1271	1273	1273	1274	1274	1274	1273
25	1207	1209	1216	1213	1202	1194	1196	1199	1202	1197	1190	1186	1183	1182	1183	1184	1186	1188	1189
30	1114	1123	1122	1108	1107	1115	1119	1105	1095	1089	1088	1089	1090	1093	1095	1098	1100	1100	1099
35	1009	1022	1000	1000	1016	1000	986	988	993	995	979	970	966	966	965	965	964	963	963
40	883	867	850	881	835	813	840	855	834	822	822	826	833	839	839	835	827	820	814
45	687	638	661	634	597	601	609	610	627	647	655	644	637	637	635	628	615	606	608
50	423	433	457	443	429	413	417	428	439	442	434	420	416	426	430	418	395	384	395
55	251	293	293	322	315	322	306	298	303	294	277	272	278	293	303	305	300	296	295
60	193	196	211	201	220	222	220	212	210	205	203	201	198	194	191	194	202	208	200
65	152	151	144	139	142	154	156	150	138	131	138	144	144	139	140	145	150	154	149
70	94.8	95.6	103	109	103	105	108	104	95.4	91.3	94.7	97.8	96.5	93.1	96.3	100	101	99.0	98.3
75	67.3	61.8	65.2	64.8	66.5	66.7	68.2	62.8	57.4	56.6	56.5	57.0	56.0	54.6	55.7	59.0	60.0	58.8	59.1
80	30.9	29.7	31.0	29.5	33.0	32.4	29.1	25.5	22.0	20.5	19.5	18.6	17.7	17.9	17.6	18.8	19.0	18.2	20.4
85	2.79	1.77	3.85	3.30	0.45	0.37	0.81	1.51	1.84	1.75	1.54	1.19	0.84	0.54	0.25	0.07	0.00	0.07	0.29
90	49.9	49.4	49.0	48.8	48.6	48.4	48.3	48.2	48.1	48.0	48.0	48.0	48.0	48.2	48.4	48.6	48.4	48.1	
95	68.0	67.4	67.0	66.5	66.2	66.0	65.8	65.7	65.4	65.1	64.9	64.8	64.8	64.8	64.7	64.5	64.4	64.4	64.3
100	87.1	86.6	86.2	85.8	85.5	85.1	84.8	84.5	84.2	83.9	83.6	83.4	83.2	83.0	82.6	82.3	82.1	82.0	81.9
105	108	107	107	106	106	106	105	105	104	104	104	103	103	102	102	102	101	101	101
110	130	129	129	128	128	127	127	126	126	125	125	124	123	123	122	122	122	122	122
115	154	153	153	152	151	151	150	150	149	148	147	147	147	147	146	145	145	145	145
120	180	179	178	177	176	176	176	175	174	174	173	173	172	172	172	171	171	171	171
125	206	205	204	203	202	202	201	201	200	199	199	199	198	198	198	197	197	197	197
130	231	230	229	228	228	227	227	227	226	225	224	224	224	224	223	223	223	223	223
135	256	255	254	253	252	252	252	251	250	250	249	249	249	249	248	248	247	248	248
140	279	278	277	276	275	275	275	274	274	273	272	272	272	272	271	271	271	271	271
145	300	299	298	297	297	296	296	296	295	294	294	294	294	294	293	293	292	293	293
150	319	318	317	316	316	316	315	315	314	314	313	313	313	313	313	312	312	312	312
155	335	334	334	333	333	332	332	332	331	331	330	330	330	330	330	330	329	329	330
160	349	348	348	347	347	346	346	346	345	345	345	345	345	345	344	344	344	344	344
165	359	359	359	358	358	358	357	357	357	357	356	356	356	356	356	356	356	356	356
170	367	367	367	366	366	366	366	366	365	365	365	365	365	365	365	365	365	365	365
175	372	372	371	371	371	371	371	371	371	371	371	371	371	371	371	371	371	371	371
180	373	373	373	373	373	373	373	373	373	373	373	373	373	373	373	373	373	373	373

C Range: 0 - 360DEG
C Interval: 5.0DEG
Test Speed: MEDIUM
Temperature:25.3DEG
Operators:Jason
Test Date:2019-11-27

γ Range: 0 - 180DEG
 γ Interval: 0.5DEG
Test System:EVERFINE GO-2000_V1 SYSTEM V2.0.362
Humidity:65.0%
Test Distance:5.850m [K=1.7094]
Remarks:

LUMINOUS DISTRIBUTION INTENSITY DATA

Test:U:220.6V I:0.1704A P:37.61W PF:0.9766 Freq:49.80Hz Lamp Flux:4060.71x1 lm		
NAME: SUGAR 450-U-36W-840	TYPE:Ceiling light	WEIGHT:
SPEC.:4000K	DIM.: φ450mm*H78mm	SERIAL No.:
MFR.: NEKO LIGHTING AG	SUR.:φ450mm	Shielding Angle:

Table--4

UNIT: cd

C (DEG) γ (DEG)	285	290	295	300	305	310	315	320	325	330	335	340	345	350	355				
0	1422	1422	1422	1422	1422	1422	1422	1422	1422	1422	1422	1422	1422	1422	1422				
5	1402	1403	1403	1403	1404	1405	1405	1406	1407	1408	1409	1410	1411	1412	1414				
10	1380	1380	1380	1380	1381	1381	1382	1383	1384	1386	1387	1388	1390	1391	1394				
15	1330	1331	1333	1335	1337	1340	1343	1346	1347	1348	1350	1354	1355	1356	1359				
20	1272	1271	1271	1272	1274	1277	1280	1282	1285	1289	1292	1295	1302	1303	1304				
25	1190	1190	1190	1191	1192	1194	1197	1202	1209	1211	1214	1218	1224	1231	1229				
30	1097	1095	1094	1095	1098	1099	1100	1102	1108	1119	1125	1127	1133	1142	1141				
35	963	965	969	974	983	985	991	997	999	1006	1018	1026	1026	1035	1039				
40	811	810	811	813	818	826	845	851	860	861	862	881	887	898	918				
45	619	631	631	616	598	603	629	637	616	631	629	608	664	658	724				
50	420	437	437	428	413	393	386	428	433	405	420	402	423	442	482				
55	299	298	282	249	231	257	285	299	301	307	300	312	317	345	343				
60	189	192	198	190	178	183	197	199	206	201	219	225	237	227	218				
65	139	134	139	136	131	134	144	136	121	141	159	168	143	124	137				
70	98.5	95.5	94.8	92.9	94.3	96.1	98.2	103	101	108	111	114	112	114	117				
75	59.5	57.4	56.2	54.3	58.0	57.7	57.4	65.3	71.1	68.5	71.8	70.5	77.4	74.4	73.8				
80	19.3	18.9	20.5	20.5	22.5	23.9	24.9	29.7	34.7	37.6	36.6	39.4	44.6	45.9	45.1				
85	0.58	0.92	1.42	1.75	2.09	2.32	2.37	1.84	0.91	0.50	4.66	7.16	4.18	5.80	8.44				
90	47.8	47.6	47.5	47.4	47.6	47.8	48.2	48.6	49.1	49.7	50.4	51.1	51.8	52.4					
95	64.2	64.0	63.8	63.7	63.9	64.2	64.6	64.9	65.3	65.8	66.5	67.3	68.2	68.9	69.6				
100	81.9	81.9	82.0	82.1	82.3	82.6	83.0	83.5	84.1	84.7	85.4	86.1	86.9	87.6	88.4				
105	101	101	101	102	102	103	103	104	104	105	106	106	107	108	109				
110	122	122	122	123	123	124	124	125	126	127	127	128	129	130	130				
115	146	146	146	146	147	148	149	149	150	150	151	153	154	154	155				
120	172	172	172	172	173	174	175	175	176	176	177	178	179	180	181				
125	198	198	198	198	199	200	200	201	202	202	203	204	205	206	207				
130	223	224	224	224	225	225	226	227	227	228	229	230	231	232	232				
135	248	248	248	249	249	250	251	251	252	252	253	254	255	256	257				
140	271	272	272	272	272	273	274	274	275	275	276	277	278	279	280				
145	293	293	293	293	294	295	295	296	296	297	298	298	299	300	301				
150	313	313	313	313	313	314	315	315	315	316	317	317	318	319	319				
155	330	330	330	330	330	331	331	332	332	333	333	334	334	335	335				
160	344	344	344	345	345	345	346	346	346	347	347	348	348	349	349				
165	356	356	356	356	357	357	357	357	358	358	358	359	359	359	360				
170	365	365	365	365	365	366	366	366	366	366	366	367	367	367	367				
175	371	371	371	371	371	371	371	371	371	371	371	371	371	372	372				
180	373	373	373	373	373	373	373	373	373	373	373	373	373	373	373				

C Range: 0 - 360DEG
C Interval: 5.0DEG
Test Speed: MEDIUM
Temperature:25.3DEG
Operators:Jason
Test Date:2019-11-27

γ Range: 0 - 180DEG
γ Interval: 0.5DEG
Test System:EVERFINE GO-2000_V1 SYSTEM V2.0.362
Humidity:65.0%
Test Distance:5.850m [K=1.7094]
Remarks: