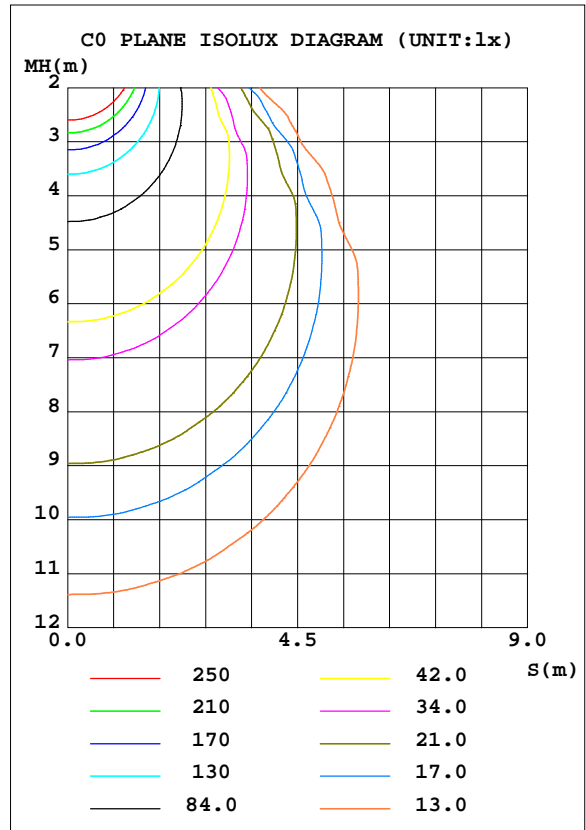
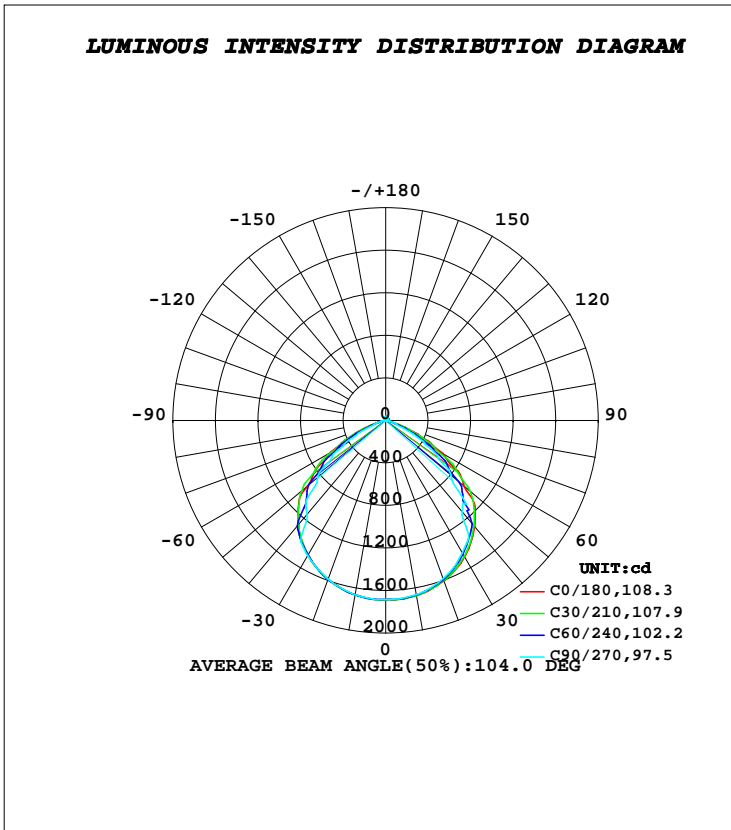


LUMINAIRE PHOTOMETRIC TEST REPORT

Test:U:220.40V I:0.1650A P:35.200W PF:0.9550 Freq:50.00Hz Lamp Flux:4253.83x1 lm		
NAME: LN-FLHL35	TYPE:LED	
MFR.:		

DATA OF LAMP		PHOTOMETRIC DATA Eff: 120.85 lm/W			
MODEL		I _{max} (cd)	1689	S/MH(C0/180)	1.31
NOMINAL POWER(W)	35	LOR(%)	100.0	S/MH(C90/270)	1.27
RATED VOLTAGE(V)	220	TOTAL FLUX(lm)	4253.8	η UP, DN(C0-180)	1.5,48.2
NOMINAL FLUX(lm)	4253.83	CIE CLASS	DIRECT	η UP, DN(C180-360)	1.5,48.9
LAMPS INSIDE	1	η up(%)	3.0	CIBSE SHR NOM	1.25
TEST VOLTAGE(V)	220	η down(%)	97.0	CIBSE SHR MAX	1.35



C Range: 0 - 360DEG
C Interval: 30.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:DAMIN
Test Date:2019-01-17

γ Range: 0 - 180DEG
γ Interval: 1.0DEG
Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.406.11
Humidity:65.0%
Test Distance:8.000m [K=0.7625]
Remarks:

ZONAL FLUX DIAGRAM

ZONAL FLUX DIAGRAM:

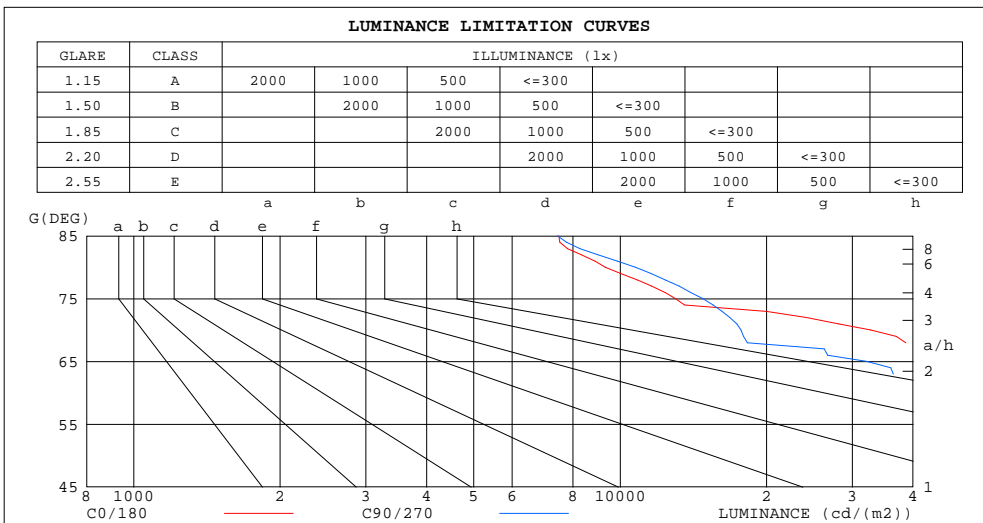
γ	C0	C45	C90	C135	C180	C225	C270	C315	γ	Φ zone	Φ total	%lum, lamp
10	1671	1668	1662	1662	1664	1665	1662	1666	0- 10	160.0	160.0	3.76,3.76
20	1605	1595	1583	1584	1589	1589	1588	1594	10- 20	461.6	621.6	14.6,14.6
30	1482	1465	1440	1451	1461	1462	1467	1470	20- 30	706.8	1328	31.2,31.2
40	1302	1281	1120	1245	1277	1287	1154	1278	30- 40	857.9	2186	51.4,51.4
50	964.8	966.3	804.0	922.2	955.7	989.9	835.3	970.7	40- 50	851.9	3038	71.4,71.4
60	622.8	522.1	420.5	542.3	595.1	535.7	443.8	538.9	50- 60	655.0	3693	86.8,86.8
70	201.6	162.6	109.1	153.7	213.5	176.1	119.2	170.2	60- 70	331.2	4024	94.6,94.6
80	29.13	30.86	33.60	34.01	34.55	37.37	37.28	34.97	70- 80	84.94	4109	96.6,96.6
90	7.472	7.366	6.951	7.243	9.749	9.389	8.904	9.408	80- 90	17.51	4127	97,97
100	10.49	10.44	9.979	10.23	12.35	11.81	11.36	11.91	90-100	10.43	4137	97.3,97.3
110	14.77	14.72	14.17	14.49	16.35	15.63	15.11	15.75	100-110	13.78	4151	97.6,97.6
120	19.33	19.35	18.90	19.13	20.70	19.91	19.42	20.06	110-120	17.20	4168	98,98
130	23.52	23.77	23.47	23.41	24.54	23.91	23.67	24.17	120-130	19.48	4188	98.4,98.4
140	26.87	27.43	27.33	26.92	27.50	27.07	27.09	27.53	130-140	19.76	4208	98.9,98.9
150	30.22	30.86	30.75	30.34	30.40	29.94	29.99	30.47	140-150	18.05	4226	99.3,99.3
160	33.72	34.16	34.05	33.73	33.69	33.05	32.92	33.30	150-160	14.76	4240	99.7,99.7
170	36.83	37.05	36.92	36.67	36.61	36.01	35.70	36.00	160-170	9.901	4250	99.9,99.9
180	38.20	37.89	37.58	37.58	38.24	37.90	37.53	37.57	170-180	3.536	4254	100,100
DEG	LUMINOUS INTENSITY:cd									UNIT:lm		

C Range: 0 - 360DEG
C Interval: 30.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:DAMIN
Test Date:2019-01-17

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.406.11
Humidity:65.0%
Test Distance:8.000m [K=0.7625]
Remarks:

LUMINANCE LIMITATION CURVES

Test:U:220.40V I:0.1650A P:35.200W PF:0.9550 Freq:50.00Hz Lamp Flux:4253.83x1 lm		
NAME: LN-FLHL35	TYPE:LED	
MFR.:		



LUMINANCE cd/(m2)		
G (DEG)	C0/180	C90/270
85	7480	7431
80	9321	10751
75	12978	14802
70	32746	17715
65	49163	32102
60	69205	46717
55	80446	58250
50	83386	69487
45	93428	80389

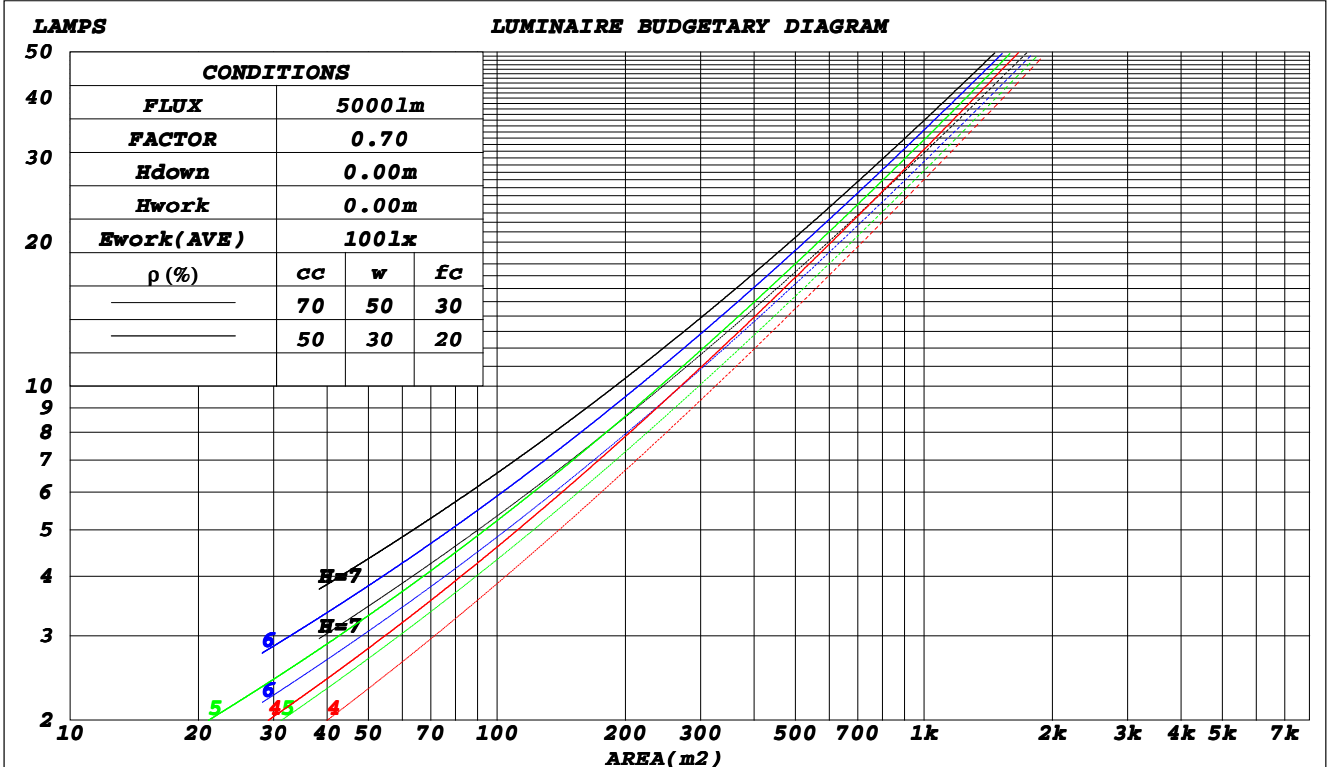
C Range: 0 - 360DEG
C Interval: 30.0DEG
Test Speed: HIGH
Temperature: 25.3DEG
Operators: DAMIN
Test Date: 2019-01-17

γ Range: 0 - 180DEG
γ Interval: 1.0DEG
Test System: EVERFINE GO-2000B_V1 SYSTEM V2.0.406.11
Humidity: 65.0%
Test Distance: 8.000m [K=0.7625]
Remarks:

CU AND LUMINAIRE BUDGETARY ESTIMATE DIAGRAM

Test:U:220.40V I:0.1650A P:35.200W PF:0.9550 Freq:50.00Hz Lamp Flux:4253.83x1 lm		
NAME: LN-FLHL35	TYPE:LED	
MFR.:		

ρ_{cc}	80%			70%			50%			30%			10%			0
ρ_w	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	0
ρ_{fc}	20%			20%			20%			20%			20%			0
RCR	RCR:Room Cavity Ratio						Coefficients of Utilization(CU)									
0.0	1.18	1.18	1.18	1.15	1.15	1.15	1.09	1.09	1.09	1.04	1.04	1.04	.99	.99	.99	.97
1.0	1.06	1.02	.99	1.03	1.00	.97	.99	.96	.94	.94	.92	.90	.90	.89	.87	.85
2.0	.94	.88	.83	.92	.86	.82	.88	.83	.80	.84	.81	.77	.81	.78	.75	.73
3.0	.84	.76	.71	.82	.75	.70	.79	.73	.68	.75	.71	.67	.73	.69	.65	.63
4.0	.75	.67	.61	.73	.66	.60	.70	.64	.59	.68	.62	.58	.65	.61	.57	.55
5.0	.67	.59	.53	.66	.58	.52	.63	.57	.51	.61	.55	.51	.59	.54	.50	.48
6.0	.61	.52	.46	.60	.52	.46	.57	.51	.45	.56	.49	.45	.54	.48	.44	.42
7.0	.55	.47	.41	.54	.46	.41	.52	.45	.40	.51	.44	.40	.49	.44	.39	.37
8.0	.50	.42	.37	.50	.42	.37	.48	.41	.36	.47	.40	.36	.45	.40	.35	.34
9.0	.46	.38	.33	.46	.38	.33	.44	.37	.33	.43	.37	.32	.42	.36	.32	.30
10.0	.43	.35	.30	.42	.35	.30	.41	.34	.30	.40	.34	.29	.39	.33	.29	.27



C Range: 0 - 360DEG
 C Interval: 30.0DEG
 Test Speed: HIGH
 Temperature: 25.3DEG
 Operators: DAMIN
 Test Date: 2019-01-17

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
 Test System: EVERFINE GO-2000B_V1 SYSTEM V2.0.406.11
 Humidity: 65.0%
 Test Distance: 8.000m [K=0.7625]
 Remarks:

WEC AND CCEC

Test:U:220.40V I:0.1650A P:35.200W PF:0.9550 Freq:50.00Hz Lamp Flux:4253.83x1 Lm		
NAME: LN-FLHL35	TYPE:LED	
MFR.:		

ρ_{cc}	80%			70%			50%			30%			10%			0
ρ_w	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	0
ρ_{fc}	20%			20%			20%			20%			20%			0
RCR	RCR:Room Cavity Ratio						Wall Exitance Coefficients(WEC)									
0.0																
1.0	.258	.146	.046	.250	.142	.045	.235	.135	.043	.222	.128	.041	.209	.121	.039	
2.0	.251	.138	.042	.244	.134	.041	.231	.129	.040	.219	.123	.039	.208	.118	.037	
3.0	.238	.127	.038	.232	.124	.037	.221	.120	.036	.210	.115	.035	.201	.111	.034	
4.0	.225	.117	.034	.219	.115	.034	.209	.111	.033	.199	.107	.032	.191	.104	.032	
5.0	.211	.107	.031	.206	.106	.031	.197	.103	.030	.188	.099	.030	.180	.096	.029	
6.0	.198	.099	.028	.194	.098	.028	.185	.095	.028	.178	.092	.027	.171	.090	.027	
7.0	.186	.092	.026	.182	.091	.026	.175	.088	.025	.168	.086	.025	.161	.084	.025	
8.0	.175	.086	.024	.172	.084	.024	.165	.082	.024	.159	.080	.023	.153	.078	.023	
9.0	.165	.080	.022	.162	.079	.022	.156	.077	.022	.150	.075	.022	.145	.074	.021	
10.0	.156	.075	.021	.153	.074	.021	.148	.072	.020	.143	.071	.020	.138	.069	.020	

ρ_{cc}	80%			70%			50%			30%			10%			0
ρ_w	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	0
ρ_{fc}	20%			20%			20%			20%			20%			0
RCR	RCR:Room Cavity Ratio						Ceiling Cavity Exitance Coefficients(CCEC)									
0.0																
1.0	.213	.213	.213	.182	.182	.182	.124	.124	.124	.071	.071	.071	.023	.023	.023	
2.0	.190	.155	.126	.163	.134	.109	.111	.092	.076	.064	.054	.045	.021	.017	.015	
3.0	.182	.137	.102	.156	.118	.088	.107	.082	.062	.062	.048	.037	.020	.016	.012	
4.0	.174	.124	.085	.149	.107	.074	.103	.075	.052	.059	.044	.031	.019	.014	.010	
5.0	.167	.113	.073	.143	.098	.064	.099	.068	.045	.057	.040	.027	.018	.013	.009	
6.0	.160	.105	.065	.138	.091	.056	.095	.064	.040	.055	.037	.024	.018	.012	.008	
7.0	.154	.098	.058	.133	.085	.051	.092	.059	.036	.053	.035	.021	.017	.011	.007	
8.0	.148	.092	.054	.128	.080	.047	.088	.056	.033	.051	.033	.020	.017	.011	.007	
9.0	.143	.087	.050	.123	.076	.043	.085	.053	.031	.050	.031	.018	.016	.010	.006	
10.0	.137	.083	.047	.118	.072	.041	.082	.051	.029	.048	.030	.017	.016	.010	.006	

C Range: 0 - 360DEG
 C Interval: 30.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:DAMIN
 Test Date:2019-01-17

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
 Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.406.11
 Humidity:65.0%
 Test Distance:8.000m [K=0.7625]
 Remarks:

UGR(Unified Glare Rating) Table

Test:U:220.40V I:0.1650A P:35.200W PF:0.9550 Freq:50.00Hz Lamp Flux:4253.83x1 lm		
NAME: LN-FLHL35	TYPE:LED	
MFR.:		

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	27.9	29.2	28.2	29.5	29.7	26.6	27.9	26.9	28.2	28.4
3H	28.3	29.6	28.6	29.8	30.1	26.7	28.0	27.1	28.3	28.5
4H	28.3	29.5	28.6	29.7	30.1	26.7	27.9	27.1	28.2	28.5
6H	28.2	29.3	28.6	29.6	29.9	26.7	27.8	27.0	28.1	28.4
8H	28.2	29.2	28.5	29.5	29.9	26.6	27.7	27.0	28.0	28.4
12H	28.1	29.1	28.5	29.5	29.8	26.6	27.6	27.0	28.0	28.3
4H 2H	28.0	29.2	28.4	29.5	29.8	26.9	28.1	27.3	28.4	28.7
3H	28.5	29.6	28.9	29.9	30.3	27.2	28.2	27.5	28.5	28.9
4H	28.5	29.5	28.9	29.8	30.2	27.2	28.1	27.6	28.5	28.8
6H	28.5	29.3	28.9	29.7	30.1	27.2	28.0	27.6	28.4	28.8
8H	28.4	29.2	28.9	29.6	30.1	27.1	27.9	27.6	28.3	28.7
12H	28.4	29.1	28.9	29.5	30.0	27.1	27.8	27.6	28.2	28.7
8H 4H	28.4	29.2	28.9	29.6	30.0	27.1	27.9	27.6	28.3	28.7
6H	28.4	29.0	28.9	29.5	30.0	27.1	27.7	27.6	28.2	28.7
8H	28.4	28.9	28.9	29.4	29.9	27.1	27.7	27.6	28.1	28.6
12H	28.4	28.8	28.9	29.3	29.8	27.1	27.6	27.6	28.1	28.6
12H 4H	28.4	29.1	28.9	29.5	30.0	27.1	27.8	27.5	28.2	28.7
6H	28.4	28.9	28.9	29.4	29.9	27.1	27.6	27.6	28.1	28.6
8H	28.4	28.8	28.9	29.3	29.8	27.1	27.6	27.6	28.0	28.6
Variations with the observer position at spacings:										
S = 1.0H	+ 0.4 / - 0.7					+ 0.8 / - 0.8				
1.5H	+ 0.4 / - 0.7					+ 0.5 / - 0.6				
2.0H	+ 1.0 / - 1.3					+ 0.9 / - 1.6				

CIE Pub.117, 4254 lm Total Lamp Luminous Flux Corrected (8log(F/F0) = 5.0)

C Range: 0 - 360DEG
 C Interval: 30.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:DAMIN
 Test Date:2019-01-17

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
 Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.406.11
 Humidity:65.0%
 Test Distance:8.000m [K=0.7625]
 Remarks:

UTILIZATION FACTORS TABLE

Test:U:220.40V I:0.1650A P:35.200W PF:0.9550 Freq:50.00Hz Lamp Flux:4253.83x1 lm		
NAME: LN-FLHL35	TYPE:LED	
MFR.:		

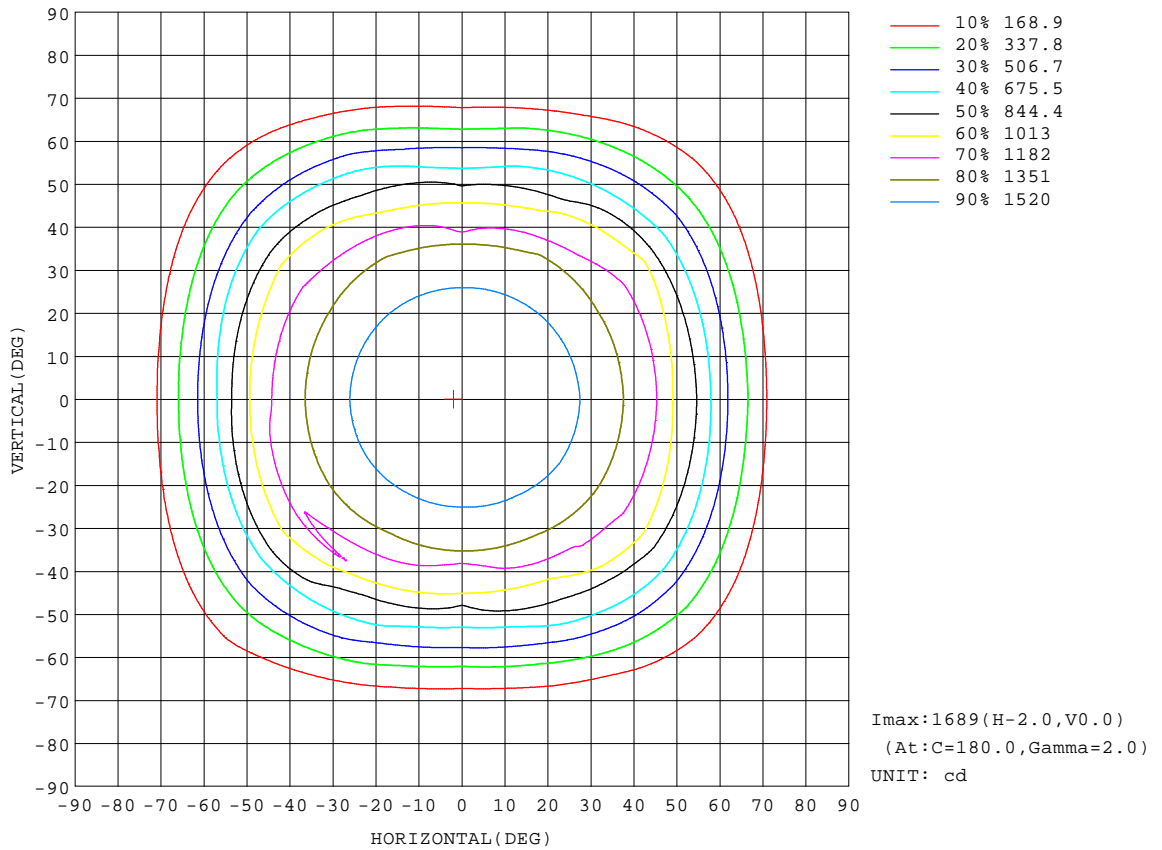
REFLECTANCE										
Ceiling	0.8	0.8	0.8	0.7	0.7	0.7	0.5	0.5	0.5	0
Walls	0.7	0.5	0.3	0.7	0.5	0.3	0.7	0.5	0.3	0
Working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0
ROOM INDEX	UTILIZATION FACTORS(PERCENT) $k(RI) \times RCR = 5$									
k = 0.60	61	50	43	60	50	43	59	49	43	37
0.80	71	61	54	70	60	54	68	59	53	47
1.00	80	70	64	79	69	63	76	70	62	56
1.25	87	78	72	86	77	71	83	75	70	63
1.50	92	83	77	90	82	76	87	80	75	68
2.00	98	91	85	96	89	84	93	87	83	75
2.50	101	95	90	99	93	89	95	90	86	78
3.00	104	99	94	102	97	93	98	94	90	81
4.00	108	103	99	105	101	97	101	97	94	85
5.00	110	106	102	107	103	100	102	99	97	87
ROOM INDEX	UF(total)									Direct
According to DIN EN 13032-2 2004			Suspended					SHRNOM = 1.25		

C Range: 0 - 360DEG
C Interval: 30.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:DAMIN
Test Date:2019-01-17

γ Range: 0 - 180DEG
γ Interval: 1.0DEG
Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.406.11
Humidity:65.0%
Test Distance:8.000m [K=0.7625]
Remarks:

ISOCANDELA DIAGRAM

Test:U:220.40V I:0.1650A P:35.200W PF:0.9550 Freq:50.00Hz Lamp Flux:4253.83x1 lm		
NAME: LN-FLHL35	TYPE:LED	
MFR.:		



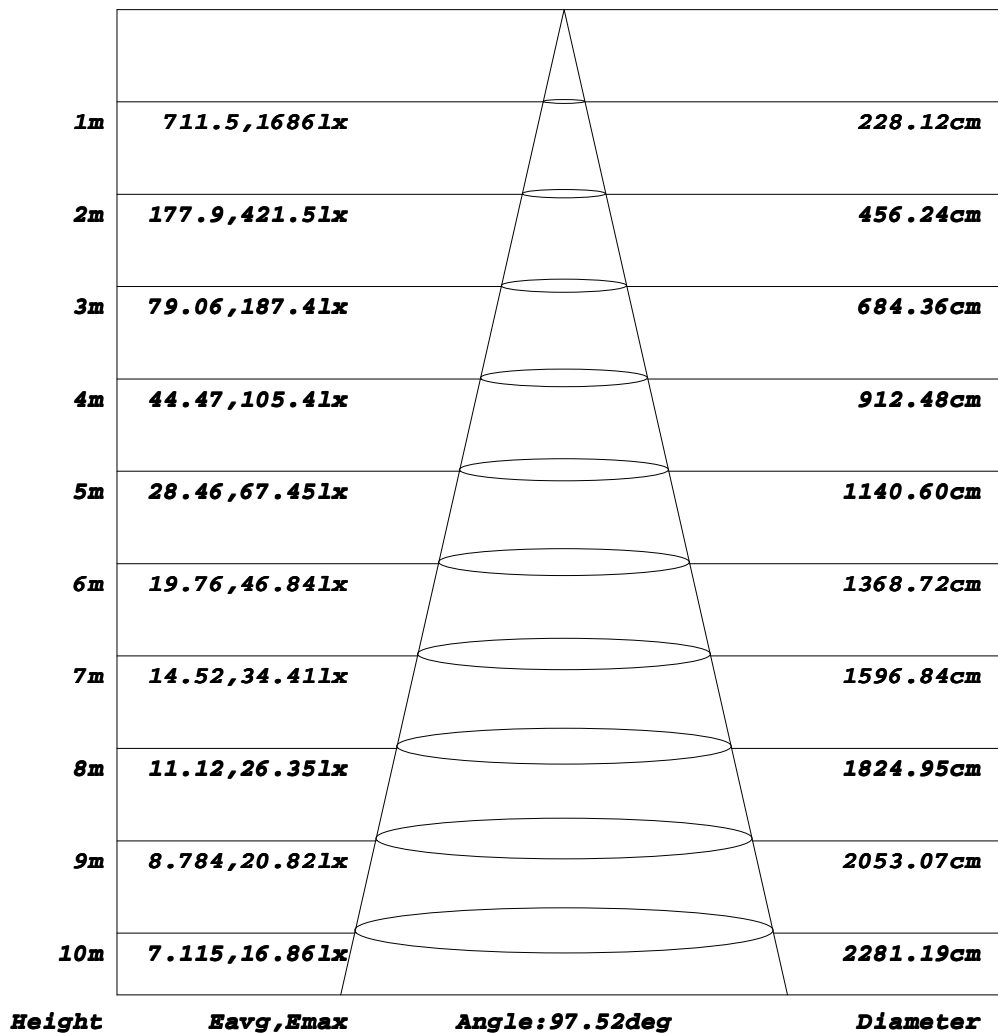
C Range: 0 - 360DEG
C Interval: 30.0DEG
Test Speed: HIGH
Temperature: 25.3DEG
Operators: DAMIN
Test Date: 2019-01-17

γ Range: 0 - 180DEG
γ Interval: 1.0DEG
Test System: EVERFINE GO-2000B_V1 SYSTEM V2.0.406.11
Humidity: 65.0%
Test Distance: 8.000m [K=0.7625]
Remarks:

AAI Figure

Test:U:220.40V I:0.1650A P:35.200W PF:0.9550 Freq:50.00Hz Lamp Flux:4253.83x1 lm		
NAME: LN-FLHL35	TYPE:LED	
MFR.:		

Flux out:2958 lm



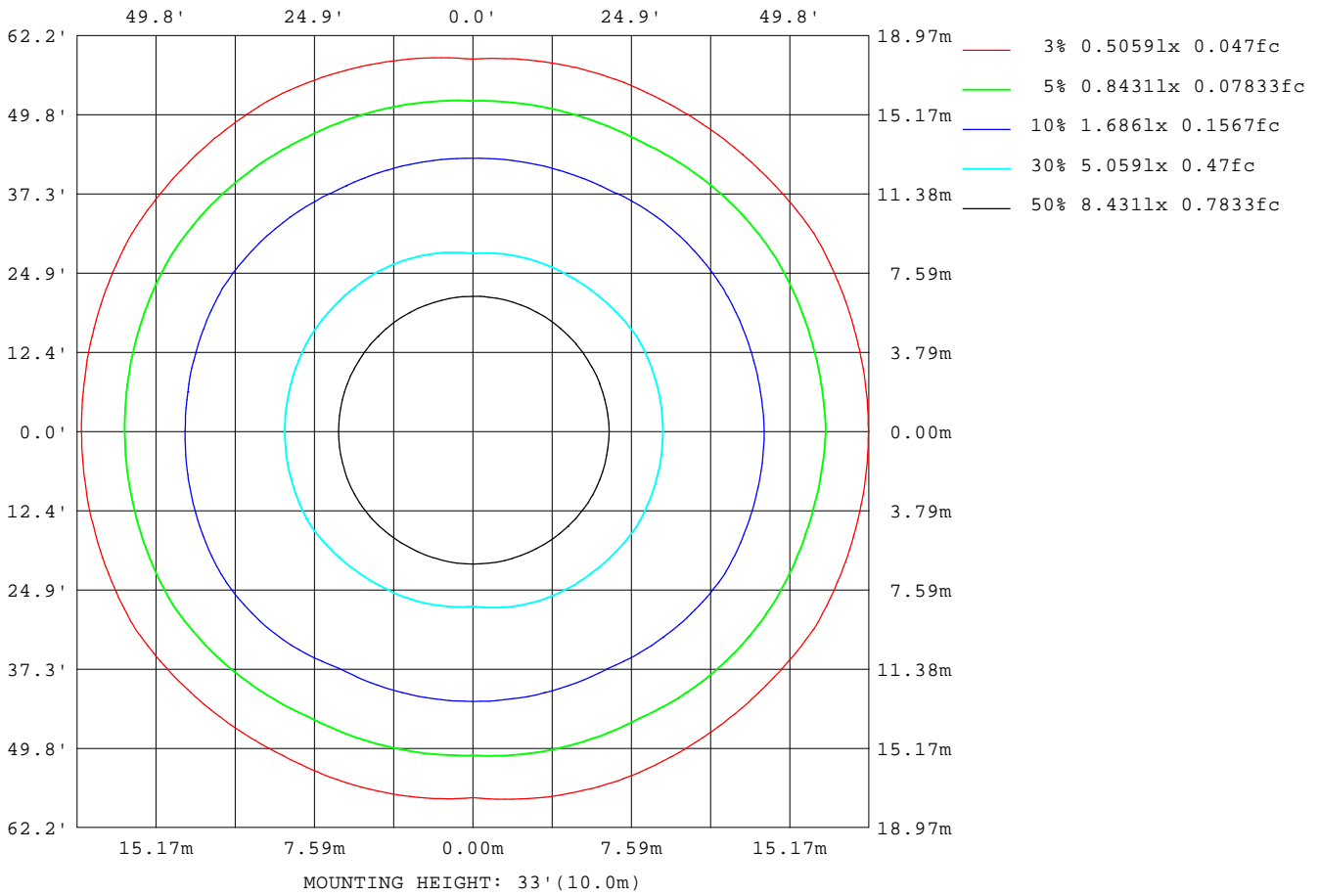
Note: The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

C Range: 0 - 360DEG
 C Interval: 30.0DEG
 Test Speed: HIGH
 Temperature: 25.3DEG
 Operators: DAMIN
 Test Date: 2019-01-17

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
 Test System: EVERFINE GO-2000B_V1 SYSTEM V2.0.406.11
 Humidity: 65.0%
 Test Distance: 8.000m [K=0.7625]
 Remarks:

ISOLUX DIAGRAM

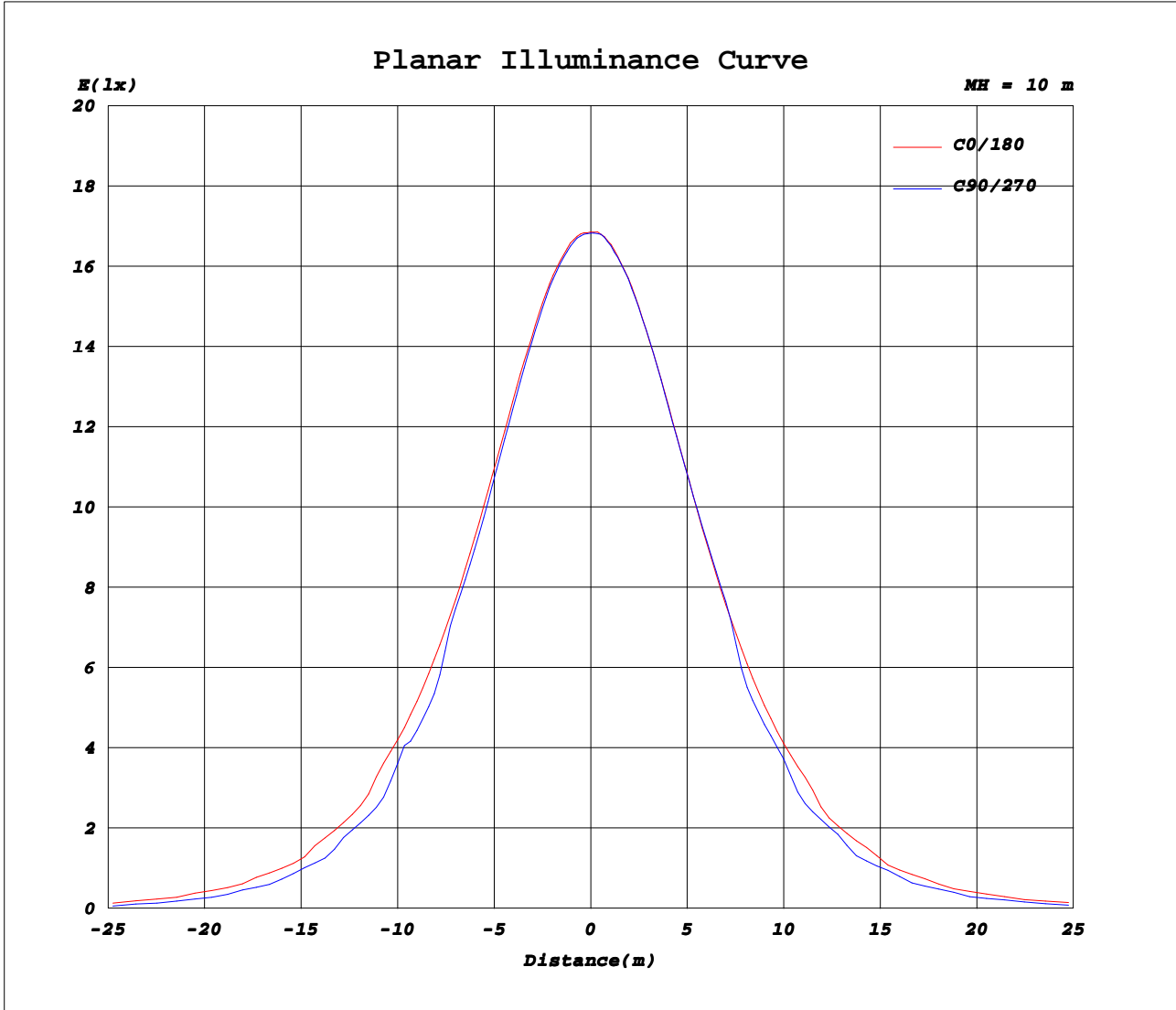
Test:U:220.40V I:0.1650A P:35.200W PF:0.9550 Freq:50.00Hz Lamp Flux:4253.83x1 lm		
NAME: LN-FLHL35	TYPE:LED	
MFR.:		



C Range: 0 - 360DEG
C Interval: 30.0DEG
Test Speed: HIGH
Temperature: 25.3DEG
Operators: DAMIN
Test Date: 2019-01-17

γ Range: 0 - 180DEG
γ Interval: 1.0DEG
Test System: EVERFINE GO-2000B_V1 SYSTEM V2.0.406.11
Humidity: 65.0%
Test Distance: 8.000m [K=0.7625]
Remarks:

Planar Illuminance Curve



C Range: 0 - 360DEG
C Interval: 30.0DEG
Test Speed: HIGH
Temperature: 25.3DEG
Operators: DAMIN
Test Date: 2019-01-17

γ Range: 0 - 180DEG
γ Interval: 1.0DEG
Test System: EVERFINE GO-2000B_V1 SYSTEM V2.0.406.11
Humidity: 65.0%
Test Distance: 8.000m [K=0.7625]
Remarks:

LUMINOUS DISTRIBUTION INTENSITY DATA

Test:U:220.40V I:0.1650A P:35.200W PF:0.9550 Freq:50.00Hz Lamp Flux:4253.83x1 lm		
NAME: LN-FLHL35	TYPE:LED	
MFR.:		

Table--1

UNIT: cd

C (DEG) \ γ (DEG)	0	30	60	90	120	150	180	210	240	270	300	330							
0	1686	1685	1683	1683	1682	1681	1686	1685	1683	1683	1682	1681							
5	1686	1686	1684	1680	1679	1680	1683	1683	1683	1681	1684	1683							
10	1671	1671	1665	1662	1662	1663	1664	1666	1664	1662	1665	1667							
15	1645	1642	1634	1630	1628	1633	1632	1635	1634	1630	1636	1637							
20	1605	1600	1591	1583	1583	1586	1589	1587	1592	1588	1593	1595							
25	1550	1546	1530	1521	1521	1528	1533	1531	1532	1531	1537	1541							
30	1482	1477	1452	1440	1442	1460	1461	1463	1461	1467	1468	1473							
35	1400	1392	1360	1360	1350	1374	1378	1376	1386	1392	1396	1390							
40	1302	1294	1268	1120	1216	1274	1277	1279	1295	1154	1264	1293							
45	1189	1176	1028	1023	1147	1289	1164	1161	1056	1054	1066	1182							
50	965	1038	895	804	829	1016	956	1031	949	835	893	1049							
55	831	814	699	601	697	763	806	807	727	627	732	782							
60	623	550	494	420	499	585	595	549	522	444	514	564							
65	374	375	302	244	279	363	387	376	343	287	319	349							
70	202	190	135	109	117	190	213	198	154	119	150	190							
75	60.5	70.1	65.6	69.0	69.8	77.5	67.5	78.6	77.3	73.7	73.9	71.9							
80	29.1	30.8	30.9	33.6	33.5	34.5	34.5	35.4	39.3	37.3	37.1	32.8							
85	11.7	11.6	11.1	11.7	12.0	12.8	14.7	14.8	15.8	14.9	14.9	13.8							
90	7.47	7.48	7.25	6.95	7.11	7.37	9.75	9.56	9.22	8.90	9.18	9.64							
95	8.79	8.82	8.60	8.24	8.41	8.66	10.9	10.6	10.1	9.92	10.2	10.7							
100	10.5	10.5	10.3	9.98	10.1	10.4	12.3	12.1	11.5	11.4	11.6	12.2							
105	12.6	12.6	12.4	12.0	12.1	12.4	14.3	13.9	13.3	13.1	13.4	14.1							
110	14.8	14.9	14.6	14.2	14.3	14.7	16.3	16.0	15.3	15.1	15.4	16.1							
115	17.1	17.2	16.9	16.5	16.6	17.0	18.5	18.1	17.4	17.2	17.6	18.2							
120	19.3	19.4	19.2	18.9	19.0	19.3	20.7	20.3	19.6	19.4	19.7	20.4							
125	21.5	21.7	21.6	21.3	21.3	21.4	22.7	22.3	21.7	21.6	21.9	22.5							
130	23.5	23.7	23.9	23.5	23.4	23.4	24.5	24.1	23.7	23.7	24.0	24.4							
135	25.2	25.5	25.8	25.5	25.3	25.2	26.1	25.7	25.4	25.5	25.8	26.1							
140	26.9	27.3	27.6	27.3	27.0	26.9	27.5	27.2	26.9	27.1	27.4	27.7							
145	28.5	29.0	29.3	29.0	28.6	28.6	28.9	28.6	28.3	28.5	28.9	29.2							
150	30.2	30.8	31.0	30.8	30.4	30.3	30.4	30.1	29.8	30.0	30.3	30.6							
155	32.0	32.4	32.6	32.5	32.1	32.1	32.1	31.6	31.3	31.4	31.7	32.1							
160	33.7	34.1	34.2	34.1	33.8	33.7	33.7	33.2	32.9	32.9	33.1	33.5							
165	35.4	35.7	35.7	35.6	35.4	35.2	35.3	34.8	34.5	34.4	34.6	34.9							
170	36.8	37.1	37.0	36.9	36.7	36.6	36.6	36.2	35.9	35.7	35.8	36.2							
175	37.9	37.9	37.7	37.6	37.5	37.4	37.5	37.1	36.7	36.6	36.7	37.0							
180	38.2	38.0	37.8	37.6	37.5	37.7	38.2	38.0	37.8	37.5	37.5	37.7							

C Range: 0 - 360DEG
C Interval: 30.0DEG
Test Speed: HIGH
Temperature: 25.3DEG
Operators: DAMIN
Test Date: 2019-01-17

γ Range: 0 - 180DEG
γ Interval: 1.0DEG
Test System: EVERFINE GO-2000B_V1 SYSTEM V2.0.406.11
Humidity: 65.0%
Test Distance: 8.000m [K=0.7625]
Remarks: