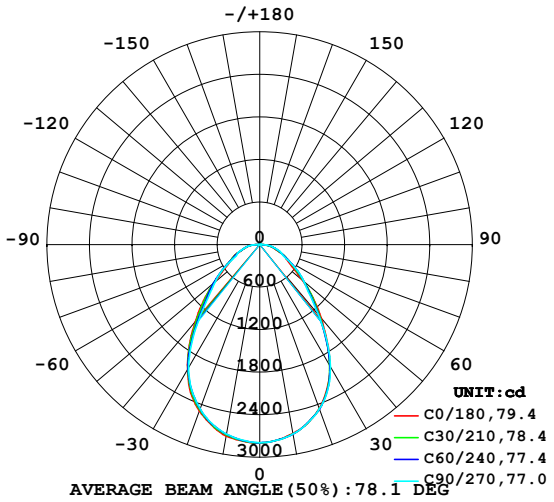
LUMINAIRE PHOTOMETRIC TEST REPORT

Test:U:222.1V I:0.1838A P:39.490W PF:0.9670 Freq:49.99Hz Lamp Flux:5270.26x1 lm		
Name: HL-PB5075A-A06	Type: LED	
MFR.:		

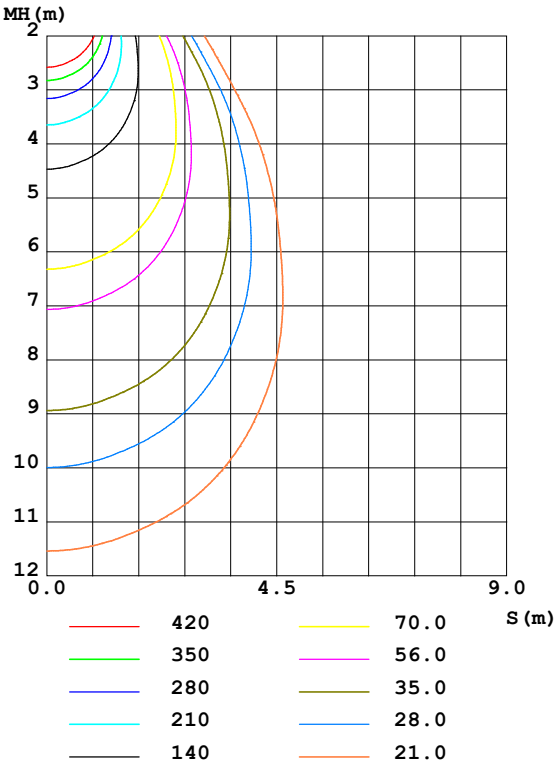
DATA OF LAMP		PHOTOMETRIC DATA Eff: 133.46 lm/W			
MODEL		Imax(cd)	2800	S/MH(C0/180)	1.11
NOMINAL POWER(W)	40	LOR(%)	100.0	S/MH(C90/270)	1.10
RATED VOLTAGE(V)	220	TOTAL FLUX(lm)	5270.3	η UP,DN(C0-180)	0.3,49.3
NOMINAL FLUX(lm)	5270.26	CIE CLASS	DIRECT	η UP,DN(C180-360)	0.6,49.9
LAMPS INSIDE	1	η up(%)	0.9	CIBSE SHR NOM	1.00
TEST VOLTAGE(V)	220	η down(%)	99.1	CIBSE SHR MAX	1.15

LUMINOUS INTENSITY DISTRIBUTION DIAGRAM



AVERAGE BEAM ANGLE(50%):78.1 DEG

C0 PLANE ISOLUX DIAGRAM (UNIT:lx)



C Range: 0 - 360DEG
C Interval: 30.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:DAMIN
Test Date:2024-04-25

γ Range: 0 - 180DEG
γ Interval: 1.0DEG
Test System:EVERFINE GO-2000A_V1 SYSTEM V2.00.443
Humidity:65.0%
Test Distance:8.000m [K=0.7125]
Remarks:

ZONAL FLUX DIAGRAM

ZONAL FLUX DIAGRAM:

γ	C0	C45	C90	C135	C180	C225	C270	C315	γ	Φ zone	Φ total	%lum,lamp
10	2703	2713	2712	2718	2740	2720	2713	2714	0- 10	262.9	262.9	4.99,4.99
20	2459	2467	2466	2474	2496	2473	2466	2470	10- 20	735.6	998.4	18.9,18.9
30	1986	1975	1997	2026	2038	2027	2010	1997	20- 30	1040	2038	38.7,38.7
40	1349	1306	1288	1367	1416	1359	1301	1333	30- 40	1044	3082	58.5,58.5
50	790.0	822.8	815.2	856.2	843.0	857.8	824.1	826.7	40- 50	822.4	3905	74.1,74.1
60	453.9	495.2	485.2	504.0	486.7	505.7	481.0	498.0	50- 60	580.9	4486	85.1,85.1
70	281.3	297.3	313.2	308.1	316.7	315.9	315.0	298.0	60- 70	388.7	4874	92.5,92.5
80	152.0	166.4	178.3	173.5	174.5	181.9	181.4	168.3	70- 80	248.6	5123	97.2,97.2
90	8.674	11.38	11.49	13.90	24.86	22.01	15.45	14.59	80- 90	101.1	5224	99.1,99.1
100	3.575	4.445	4.429	4.512	10.34	10.13	9.977	9.603	90-100	9.620	5234	99.3,99.3
110	3.884	3.854	3.838	4.619	10.11	10.30	10.14	9.630	100-110	7.464	5241	99.4,99.4
120	4.283	4.236	4.237	4.981	10.13	10.27	10.08	9.597	110-120	7.087	5248	99.6,99.6
130	4.726	4.677	4.690	5.357	9.915	9.984	9.806	9.357	120-130	6.551	5255	99.7,99.7
140	4.987	4.952	4.972	5.536	9.362	9.371	9.202	8.813	130-140	5.625	5260	99.8,99.8
150	5.172	5.157	5.183	5.607	8.543	8.525	8.384	8.047	140-150	4.399	5265	99.9,99.9
160	5.400	5.370	5.395	5.671	7.626	7.601	7.486	7.224	150-160	3.084	5268	100,100
170	5.705	5.642	5.659	5.787	6.753	6.722	6.652	6.479	160-170	1.794	5270	100,100
180	5.961	5.938	5.881	5.865	5.966	5.937	5.885	5.858	170-180	0.5802	5270	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:2024-04-25

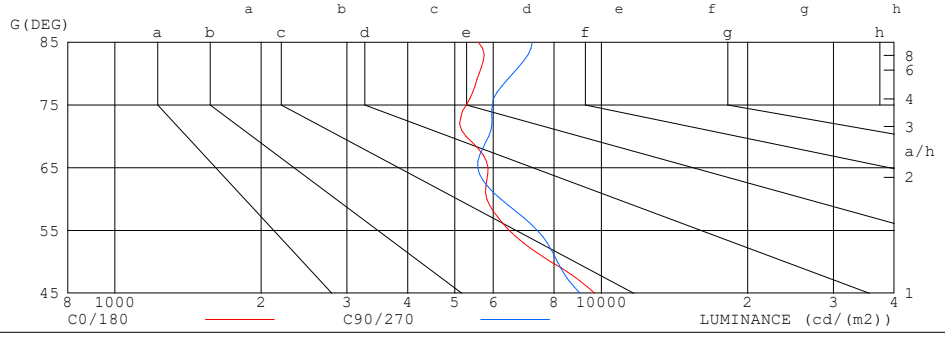
γ Range: 0 - 180DEG
γ Interval: 1.0DEG
Test System:EVERFINE GO-2000A_V1 SYSTEM V2.00.443
Humidity:65.0%
Test Distance:8.000m [K=0.7125]
Remarks:

LUMINANCE LIMITATION CURVES

Test:U:222.1V I:0.1838A P:39.490W PF:0.9670 Freq:49.99Hz **Lamp Flux:5270.26x1 lm**		
Name: HL-PB5075A-A06	**Type: LED**	
MFR.:		

LUMINANCE LIMITATION CURVES

GLARE	CLASS	ILLUMINANCE (lx)							
1.15	A	2000	1000	500	<=300				
1.50	B		2000	1000	500	<=300			
1.85	C			2000	1000	500	<=300		
2.20	D				2000	1000	500	<=300	
2.55	E					2000	1000	500	<=300
		a	b	c	d	e	f	g	h



LUMINANCE cd/(m2)		
G(DEG)	C0/180	C90/270
85	5591	7209
80	5611	6581
75	5281	5978
70	5272	5870
65	5851	5576
60	5820	6220
55	6472	7395
50	7878	8129
45	9694	9047

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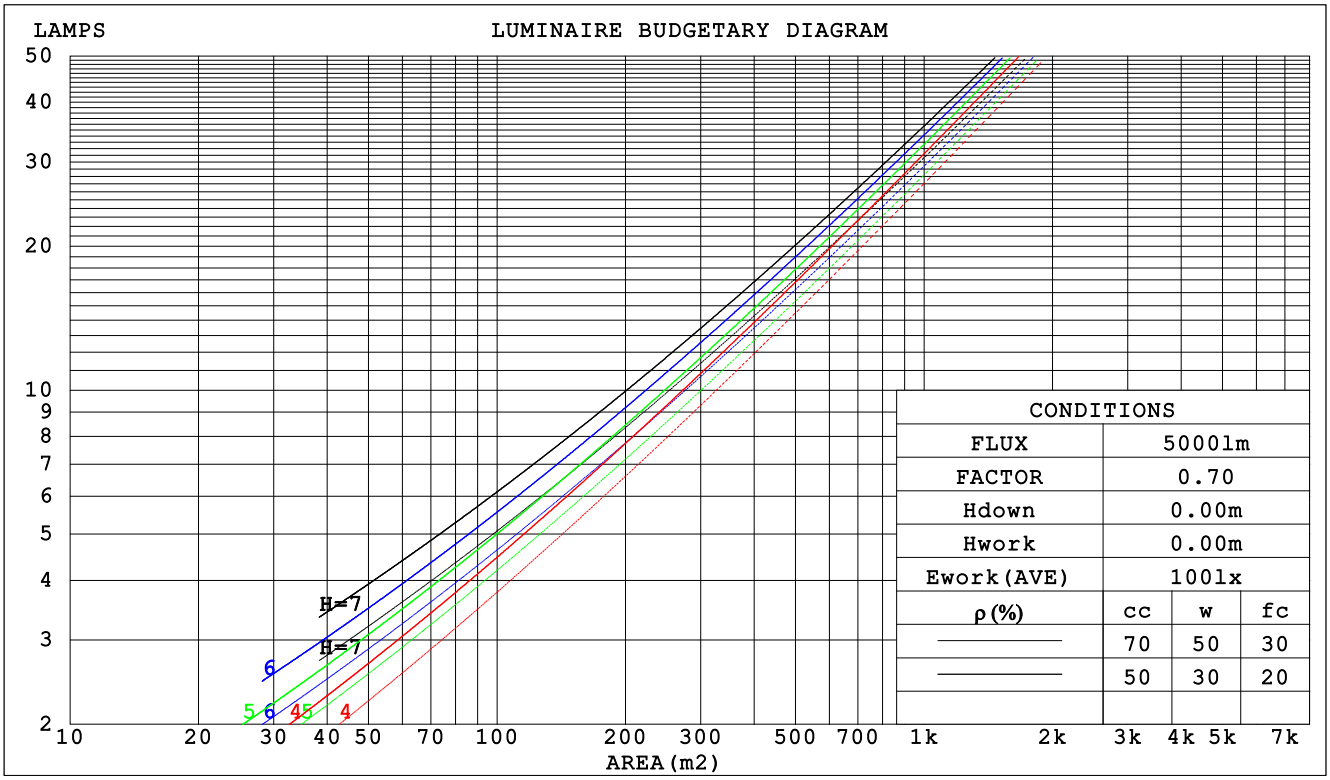
γ Interval: 1.0DEG
Test System:EVERFINE GO-2000A_V1 SYSTEM V2.00.443
Humidity:65.0%
Test Distance:8.000m [K=0.7125]
Remarks:

CU AND LUMINAIRE BUDGETARY ESTIMATE DIAGRAM

Test:U:222.1V I:0.1838A P:39.490W PF:0.9670 Freq:49.99Hz Lamp Flux:5270.26x1 lm		
Name: HL-PB5075A-A06	Type: LED	
MFR.:		

ρcc	80%			70%			50%			30%			10%			0
ρw	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	0
ρfc	20%			20%			20%			20%			20%			0
RCR	RCR:Room Cavity Ratio			Coefficients of Utilization(CU)												
0.0	1.19	1.19	1.19	1.16	1.16	1.16	1.11	1.11	1.11	1.06	1.06	1.06	1.01	1.01	1.01	.99
1.0	1.06	1.02	.98	1.03	.00	.97	.99	.96	.93	.95	.93	.90	.91	.89	.88	.86
2.0	.94	.88	.83	.92	.86	.82	.88	.84	.80	.85	.81	.78	.82	.79	.76	.74
3.0	.84	.77	.71	.83	.76	.70	.80	.74	.69	.77	.72	.68	.74	.70	.67	.65
4.0	.76	.68	.62	.75	.67	.62	.72	.66	.61	.70	.64	.60	.67	.63	.59	.57
5.0	.69	.61	.55	.68	.60	.54	.66	.59	.54	.64	.58	.53	.62	.57	.53	.51
6.0	.63	.55	.49	.62	.54	.49	.60	.53	.48	.58	.52	.48	.57	.51	.47	.45
7.0	.58	.50	.44	.57	.49	.44	.55	.48	.44	.54	.48	.43	.52	.47	.43	.41
8.0	.53	.45	.40	.52	.45	.40	.51	.44	.40	.50	.44	.39	.49	.43	.39	.37
9.0	.49	.42	.37	.49	.41	.36	.47	.41	.36	.46	.40	.36	.45	.40	.36	.34
10.0	.46	.38	.34	.45	.38	.33	.44	.38	.33	.43	.37	.33	.42	.37	.33	.31



C Range: 0 - 360DEG
C Interval: 30.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:DAMIN
Test Date:2024-04-25

γ Range: 0 - 180DEG
γ Interval: 1.0DEG
Test System:EVERFINE GO-2000A_V1 SYSTEM V2.00.443
Humidity:65.0%
Test Distance:8.000m [K=0.7125]
Remarks:

WEC AND CCEC

Test:U:222.1V I:0.1838A P:39.490W PF:0.9670 Freq:49.99Hz Lamp Flux:5270.26x1 lm		
Name: HL-PB5075A-A06	Type: LED	
MFR.:		

ρcc	80%			70%			50%			30%			10%			0
ρw	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	0
ρfc	20%			20%			20%			20%			20%			0
RCR	RCR:Room Cavity Ratio						Wall Exitance Coeffcients(WEC)									
0.0																
1.0	.274	.156	.049	.267	.152	.048	.253	.145	.046	.240	.139	.045	.229	.133	.043	
2.0	.256	.140	.043	.250	.138	.042	.238	.132	.041	.227	.127	.040	.217	.123	.039	
3.0	.238	.127	.038	.233	.125	.037	.222	.120	.037	.212	.116	.036	.204	.113	.035	
4.0	.221	.115	.034	.216	.113	.033	.207	.110	.033	.199	.107	.032	.191	.104	.032	
5.0	.206	.105	.030	.202	.104	.030	.194	.101	.030	.186	.098	.029	.179	.096	.029	
6.0	.192	.096	.028	.189	.095	.027	.181	.093	.027	.175	.091	.027	.168	.089	.026	
7.0	.180	.089	.025	.177	.088	.025	.170	.086	.025	.164	.084	.025	.159	.082	.024	
8.0	.170	.083	.023	.167	.082	.023	.161	.080	.023	.155	.079	.023	.150	.077	.022	
9.0	.160	.077	.022	.157	.077	.021	.152	.075	.021	.147	.074	.021	.142	.072	.021	
10.0	.151	.072	.020	.149	.072	.020	.144	.070	.020	.139	.069	.020	.135	.068	.020	

ρcc	80%			70%			50%			30%			10%			0
ρw	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	0
ρfc	20%			20%			20%			20%			20%			0
RCR	RCR:Room Cavity Ratio						Ceiling Cavity Exitance Coefficients(CCEC)									
0.0	.197	.197	.197	.168	.168	.168	.115	.115	.115	.066	.066	.066	.021	.021	.021	
1.0	.185	.163	.144	.158	.140	.124	.108	.096	.086	.062	.056	.050	.020	.018	.016	
2.0	.174	.139	.109	.149	.120	.094	.102	.083	.066	.059	.048	.039	.019	.016	.013	
3.0	.165	.121	.086	.142	.104	.074	.097	.072	.052	.056	.042	.031	.018	.014	.010	
4.0	.157	.107	.069	.135	.093	.060	.093	.065	.042	.054	.038	.025	.017	.012	.008	
5.0	.149	.096	.058	.128	.083	.050	.088	.058	.035	.051	.034	.021	.016	.011	.007	
6.0	.142	.088	.049	.122	.076	.043	.084	.053	.030	.049	.031	.018	.016	.010	.006	
7.0	.135	.081	.043	.116	.070	.037	.080	.049	.026	.047	.029	.016	.015	.009	.005	
8.0	.129	.075	.038	.111	.065	.033	.077	.046	.023	.045	.027	.014	.014	.009	.005	
9.0	.124	.070	.034	.106	.061	.029	.074	.043	.021	.043	.025	.012	.014	.008	.004	
10.0	.118	.066	.031	.102	.057	.027	.071	.040	.019	.041	.024	.011	.013	.008	.004	

C Range: 0 - 360DEG
C Interval: 30.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:DAMIN
Test Date:2024-04-25

γ Range: 0 - 180DEG
γ Interval: 1.0DEG
Test System:EVERFINE GO-2000A_V1 SYSTEM V2.00.443
Humidity:65.0%
Test Distance:8.000m [K=0.7125]
Remarks:

UGR(Unified Glare Rating) Table

Test:U:222.1V I:0.1838A P:39.490W PF:0.9670 Freq:49.99Hz Lamp Flux:5270.26x1 lm		
Name: HL-PB5075A-A06	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	18.6	19.9	18.9	20.1	20.4	18.7	20.0	19.0	20.2	20.5
3H	19.7	20.9	20.0	21.1	21.4	19.8	21.0	20.1	21.3	21.5
4H	20.2	21.3	20.5	21.6	21.9	20.4	21.6	20.7	21.8	22.1
6H	20.7	21.8	21.0	22.1	22.3	21.0	22.1	21.4	22.4	22.7
8H	20.9	22.0	21.2	22.2	22.5	21.3	22.4	21.6	22.7	23.0
12H	21.0	22.1	21.4	22.4	22.7	21.5	22.6	21.9	22.9	23.2
4H 2H	19.0	20.2	19.3	20.5	20.7	19.1	20.3	19.4	20.5	20.8
3H	20.3	21.3	20.7	21.6	22.0	20.4	21.5	20.8	21.8	22.1
4H	21.0	21.9	21.4	22.2	22.6	21.2	22.2	21.6	22.5	22.8
6H	21.7	22.5	22.1	22.9	23.2	22.0	22.8	22.4	23.2	23.6
8H	22.0	22.7	22.4	23.1	23.5	22.4	23.2	22.8	23.5	23.9
12H	22.2	22.9	22.6	23.3	23.7	22.7	23.4	23.1	23.8	24.2
8H 4H	21.3	22.1	21.7	22.4	22.8	21.5	22.3	21.9	22.7	23.0
6H	22.2	22.8	22.6	23.2	23.7	22.5	23.1	22.9	23.5	24.0
8H	22.6	23.1	23.0	23.6	24.1	23.0	23.6	23.5	24.0	24.5
12H	22.9	23.4	23.4	23.9	24.4	23.4	23.9	23.9	24.4	24.9
12H 4H	21.3	22.0	21.8	22.4	22.9	21.5	22.2	22.0	22.6	23.1
6H	22.3	22.8	22.7	23.3	23.8	22.6	23.1	23.0	23.6	24.1
8H	22.7	23.2	23.2	23.7	24.2	23.1	23.6	23.6	24.1	24.6
Variations with the observer position at spacings(CIE Pub.117):										
S = 1.0H	+ 0.3 / - 0.4					+ 0.2 / - 0.3				
1.5H	+ 0.1 / - 0.3					+ 0.1 / - 0.1				
2.0H	+ 0.5 / - 0.5					+ 0.3 / - 0.4				

CIE Pub.117, 5270 lm Total Lamp Luminous Flux Corrected (8log(F/F0) = 5.8)
Area: 0.156 m2

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Operators:DAMIN
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γ Range: 0 - 180DEG
γ Interval: 1.0DEG
Test System:EVERFINE GO-2000A_V1 SYSTEM V2.00.443
Humidity:65.0%
Test Distance:8.000m [K=0.7125]
Remarks:

UTILIZATION FACTORS TABLE

Test:U:222.1V I:0.1838A P:39.490W PF:0.9670 Freq:49.99Hz Lamp Flux:5270.26x1 lm		
Name: HL-PB5075A-A06	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) x RCR = 5									
k = 0.60	66	56	50	65	56	50	64	55	49	44
0.80	75	65	59	74	65	59	73	64	58	52
1.00	83	73	67	82	73	67	79	74	66	60
1.25	89	80	74	88	79	74	85	78	73	66
1.50	93	85	79	92	84	78	89	82	77	71
2.00	99	92	86	97	90	85	94	88	84	76
2.50	102	95	90	100	94	89	96	91	87	79
3.00	105	99	94	103	97	93	99	94	91	83
4.00	108	103	99	106	101	98	102	98	95	86
5.00	110	106	102	108	104	101	103	100	98	89
ROOM INDEX	UF(total)									Direct
According to DIN EN 13032-2 2004				Suspended					SHRNOM = 1.25	

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γ Interval: 1.0DEG
Test System:EVERFINE GO-2000A_V1 SYSTEM V2.00.443
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ISOCANDELA DIAGRAM

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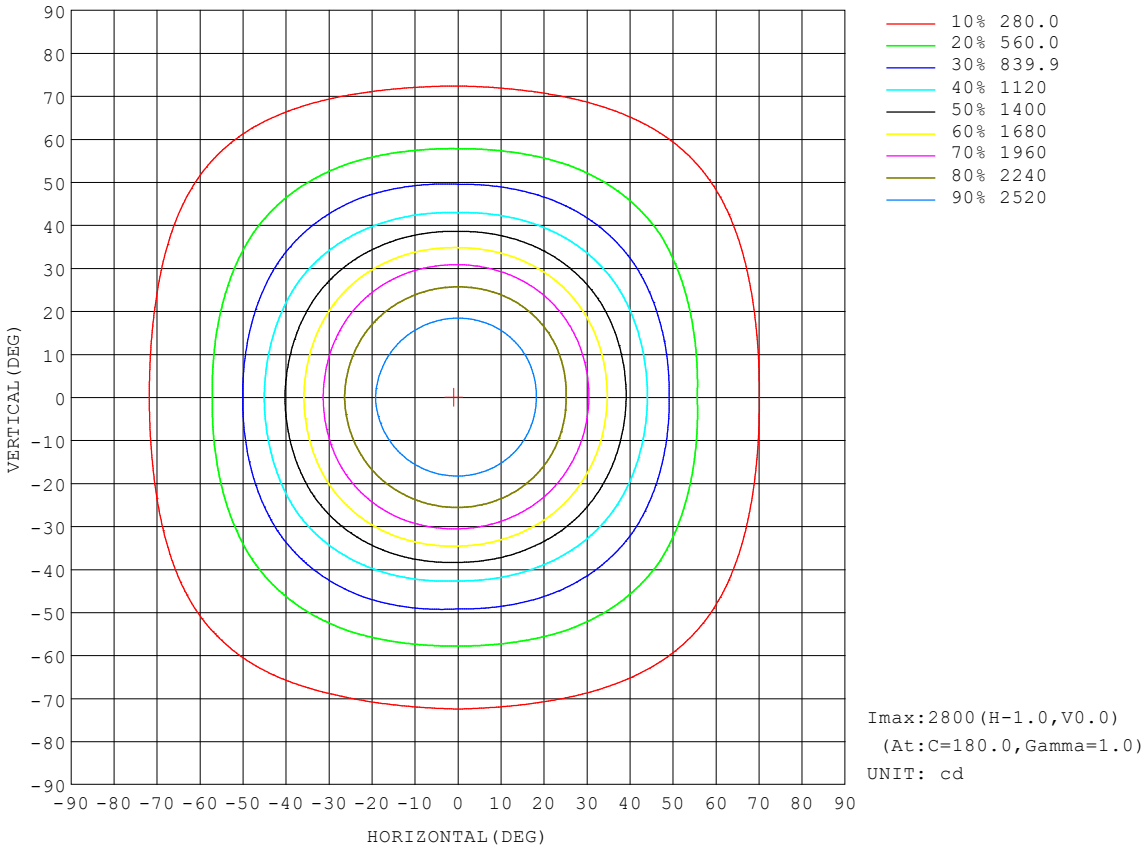
MFR.:		



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AAI Figure

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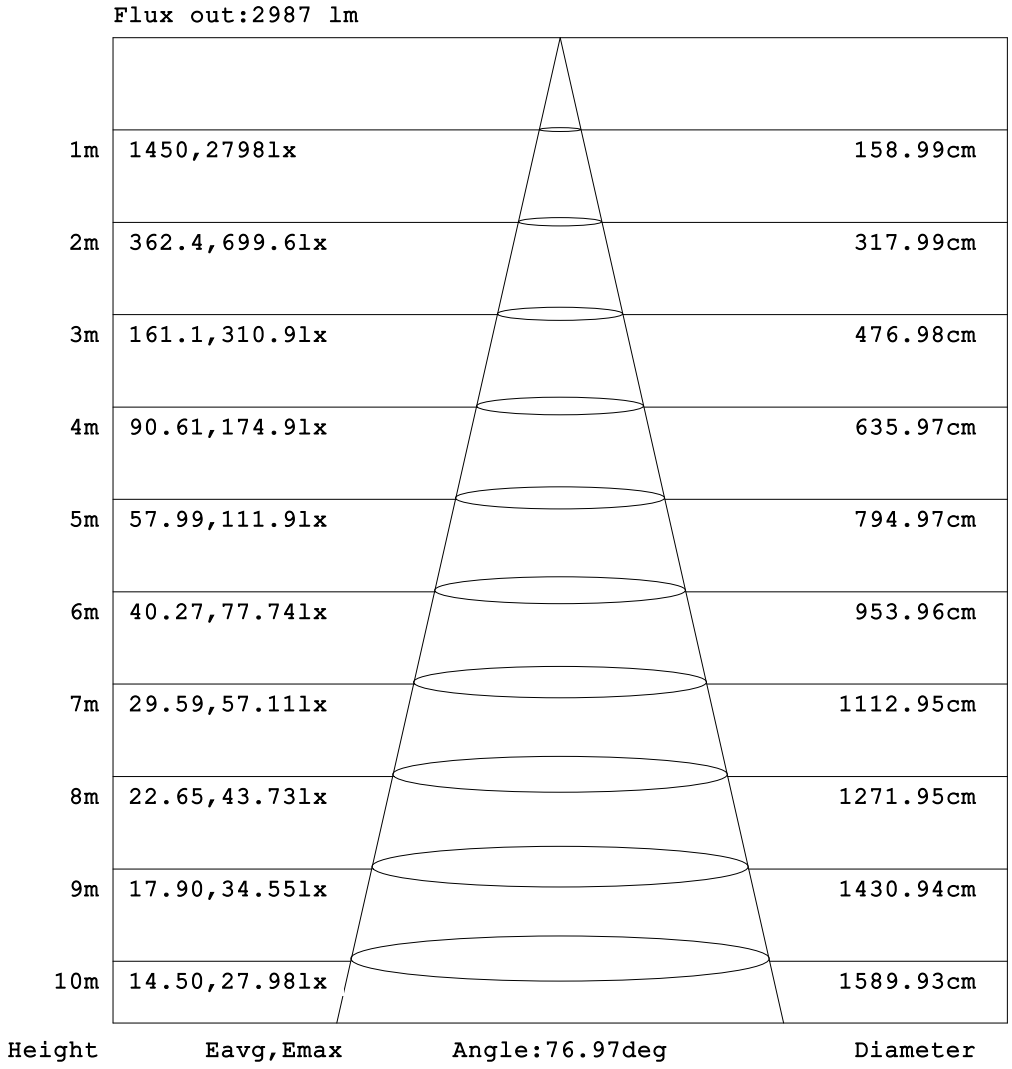

Note:The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

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ISOLUX DIAGRAM

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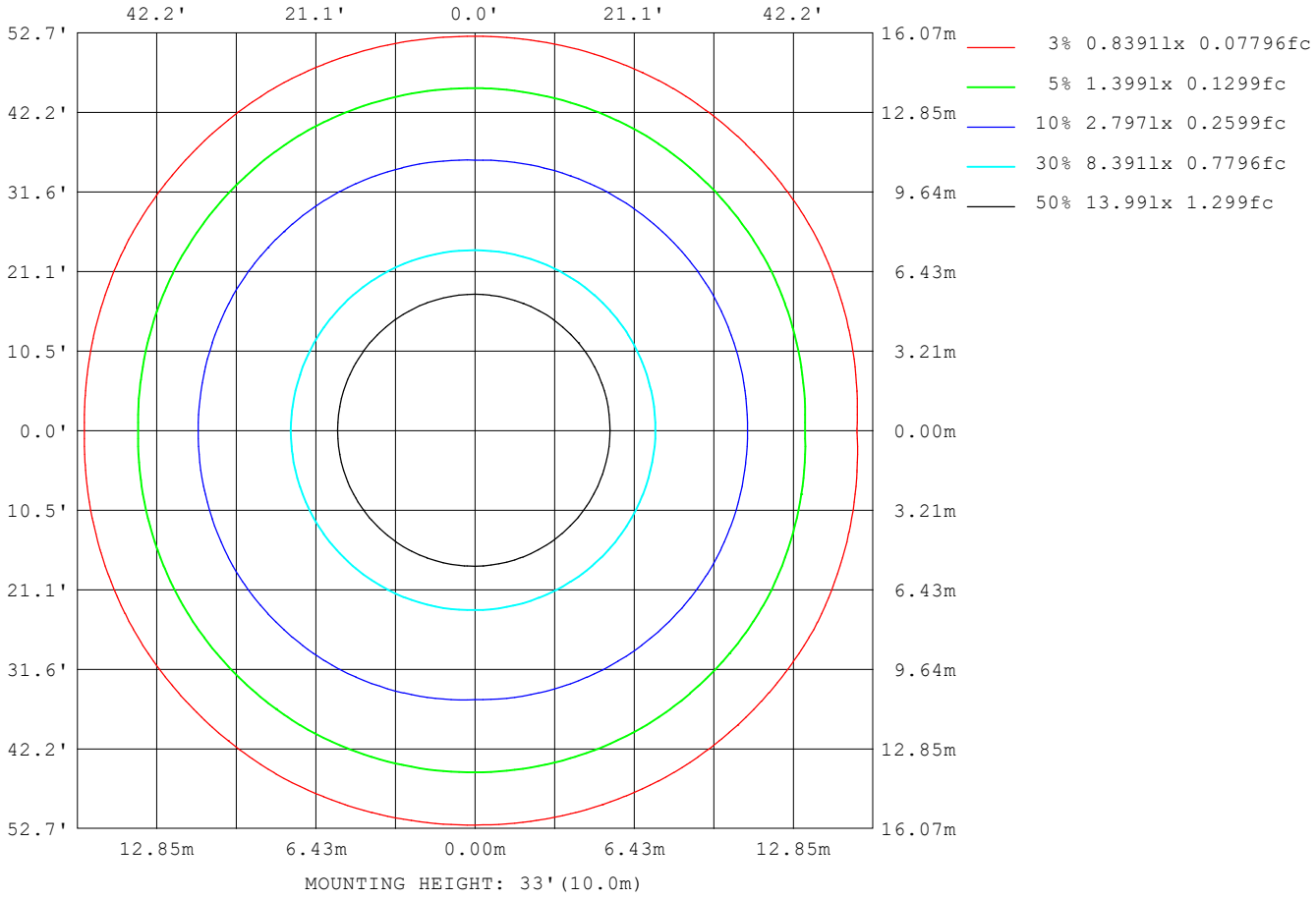
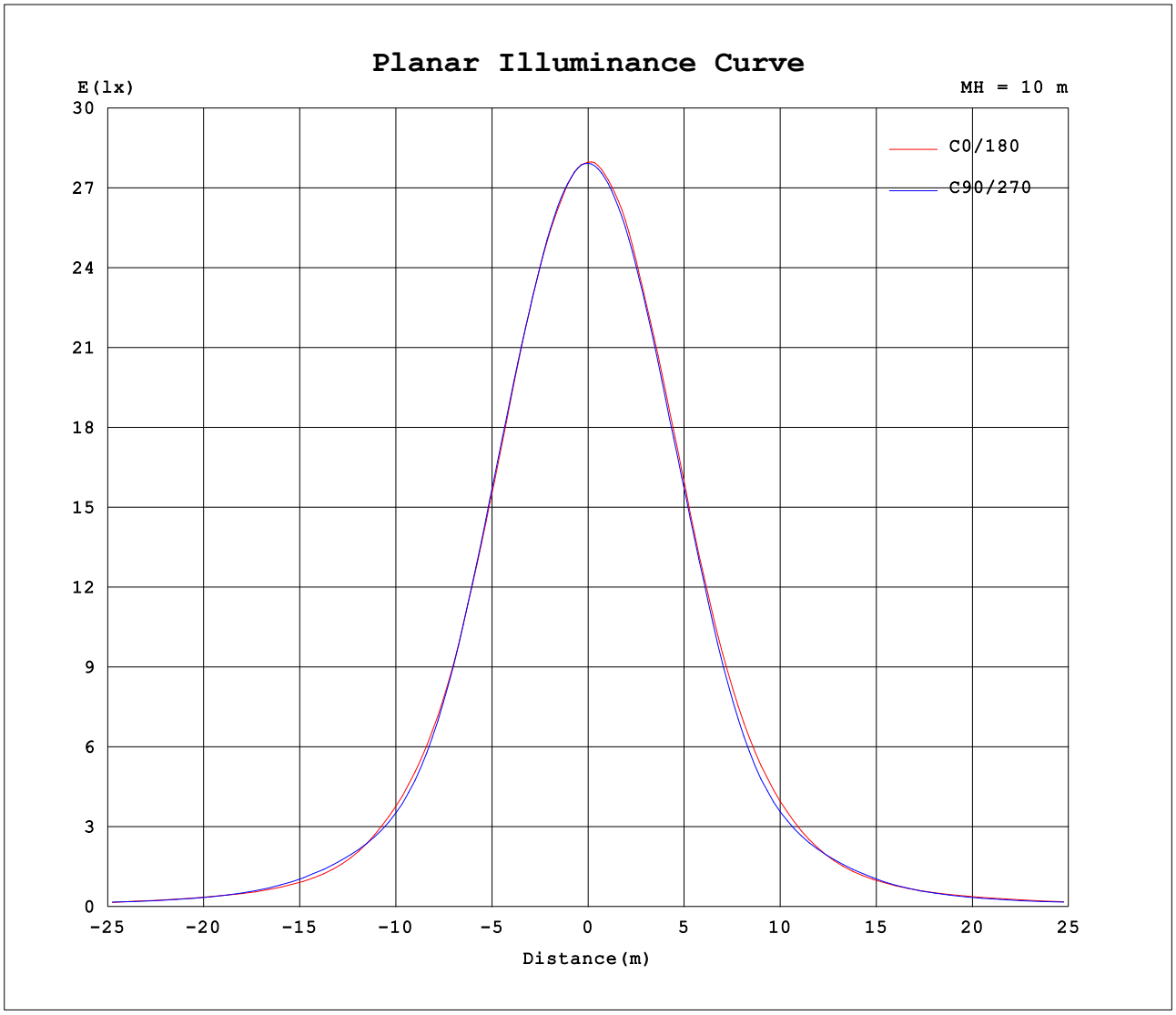
Name: HL-PB5075A-A06	**Type: LED**	
MFR.:		



C Range: 0 - 360DEG
C Interval: 30.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:DAMIN
Test Date:2024-04-25

γ Range: 0 - 180DEG
γ Interval: 1.0DEG
Test System:EVERFINE GO-2000A_V1 SYSTEM V2.00.443
Humidity:65.0%
Test Distance:8.000m [K=0.7125]
Remarks:

Planar Illuminance Curve



C Range: 0 - 360DEG
C Interval: 30.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:DAMIN
Test Date:2024-04-25

γ Range: 0 - 180DEG
γ Interval: 1.0DEG
Test System:EVERFINE GO-2000A_V1 SYSTEM V2.00.443
Humidity:65.0%
Test Distance:8.000m [K=0.7125]
Remarks:

LUMINOUS DISTRIBUTION INTENSITY DATA

Test:U:222.1V I:0.1838A P:39.490W PF:0.9670 Freq:49.99Hz Lamp Flux:5270.26x1 lm		
Name: HL-PB5075A-A06	Type: LED	
MFR.:		

Table--1 UNIT: cd

γ (DEG) \ C(DEG)	0	30	60	90	120	150	180	210	240	270	300	330
0	2797	2795	2794	2793	2791	2793	2797	2796	2794	2793	2791	2792
5	2770	2769	2770	2771	2770	2775	2783	2778	2773	2770	2766	2766
10	2703	2712	2714	2712	2712	2724	2740	2726	2715	2713	2715	2712
15	2611	2607	2605	2607	2615	2626	2634	2626	2617	2613	2610	2609
20	2459	2466	2468	2466	2467	2480	2496	2479	2467	2466	2471	2470
25	2246	2255	2263	2270	2272	2288	2308	2289	2272	2270	2275	2270
30	1986	1972	1978	1997	2019	2033	2038	2032	2021	2010	2001	1993
35	1659	1638	1634	1649	1692	1726	1734	1719	1691	1664	1664	1666
40	1349	1318	1294	1288	1340	1393	1416	1383	1335	1301	1322	1344
45	1069	1053	1021	998	1060	1112	1124	1102	1055	1012	1043	1071
50	790	821	824	815	851	861	843	861	855	824	830	823
55	579	631	657	662	667	650	624	653	671	664	654	627
60	454	493	498	485	504	504	487	507	505	481	499	497
65	386	392	381	368	392	409	410	411	392	365	381	393
70	281	291	303	313	308	308	317	316	316	315	304	292
75	213	227	236	241	237	233	232	239	243	240	236	227
80	152	162	171	178	175	172	174	180	183	181	173	163
85	76.0	81.4	89.9	98.0	94.3	95.9	103	102	102	103	94.5	84.5
90	8.67	11.0	11.7	11.5	11.3	16.5	24.9	24.1	19.9	15.5	15.4	13.8
95	3.89	5.69	6.36	5.99	4.23	6.52	11.8	11.2	10.3	10.4	11.0	9.22
100	3.57	4.31	4.58	4.43	3.37	5.66	10.3	10.4	9.89	9.98	10.5	8.70
105	3.74	3.91	3.96	3.90	3.33	5.69	10.1	10.4	10.1	10.1	10.5	8.71
110	3.88	3.86	3.85	3.84	3.42	5.82	10.1	10.4	10.1	10.1	10.5	8.74
115	4.04	4.00	3.99	4.00	3.60	5.94	10.1	10.4	10.1	10.1	10.5	8.75
120	4.28	4.24	4.23	4.24	3.85	6.11	10.1	10.4	10.1	10.1	10.4	8.77
125	4.52	4.47	4.47	4.48	4.12	6.26	10.1	10.3	10.0	9.98	10.3	8.73
130	4.73	4.68	4.67	4.69	4.36	6.36	9.92	10.1	9.84	9.81	10.1	8.63
135	4.88	4.84	4.83	4.85	4.55	6.40	9.68	9.86	9.57	9.54	9.79	8.46
140	4.99	4.95	4.95	4.97	4.69	6.38	9.36	9.51	9.23	9.20	9.41	8.21
145	5.07	5.04	5.04	5.07	4.81	6.31	8.98	9.10	8.85	8.82	8.98	7.91
150	5.17	5.15	5.16	5.18	4.96	6.25	8.54	8.64	8.41	8.38	8.51	7.59
155	5.28	5.26	5.27	5.30	5.11	6.18	8.10	8.17	7.97	7.94	8.02	7.25
160	5.40	5.37	5.37	5.40	5.24	6.10	7.63	7.68	7.52	7.49	7.53	6.92
165	5.56	5.50	5.49	5.52	5.41	6.04	7.17	7.21	7.09	7.06	7.06	6.62
170	5.70	5.65	5.64	5.66	5.58	6.00	6.75	6.77	6.68	6.65	6.62	6.34
175	5.86	5.83	5.82	5.82	5.75	5.96	6.36	6.35	6.29	6.27	6.21	6.07
180	5.96	5.95	5.92	5.88	5.85	5.88	5.97	5.95	5.92	5.89	5.85	5.87

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