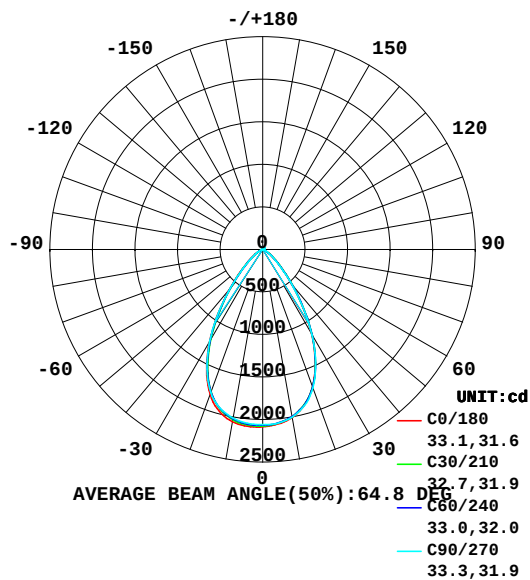


LUMINAIRE PHOTOMETRIC TEST REPORT

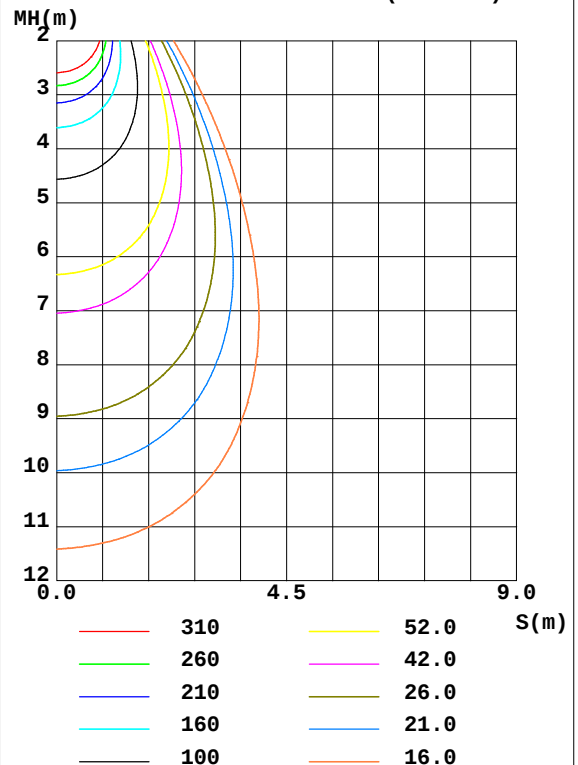
Test:U:220.50V I:0.1130A P:23.600W PF:0.9470 Freq:50.00Hz Lamp Flux:2461.75x1 lm		
NAME: PS-TL25W40KD6080RA-D	TYPE: LED	
MFR.:		

DATA OF LAMP		PHOTOMETRIC DATA Eff: 104.31 lm/W			
MODEL	PS-TL25W40KD6080RA-D	Imax(cd)	2089	S/MH(C0/180)	0.94
NOMINAL POWER(W)	25	LOR(%)	100.0	S/MH(C90/270)	0.95
RATED VOLTAGE(V)	220	TOTAL FLUX(lm)	2461.7	η UP, DN(C0-180)	1.7, 46.4
NOMINAL FLUX(lm)	2461.75	CIE CLASS	DIRECT	η UP, DN(C180-360)	1.6, 50.3
LAMPS INSIDE	1	η up(%)	3.3	CIBSE SHR NOM	1.00
TEST VOLTAGE(V)	220.6	η down(%)	96.7	CIBSE SHR MAX	1.00

LUMINOUS INTENSITY DISTRIBUTION DIAGRAM



C0 PLANE ISOLUX DIAGRAM (UNIT:lx)



C Range: 0 - 360DEG
C Interval: 30.0DEG
Test Speed: HIGH
Temperature: 25.3DEG
Operators: DAMIN
Test Date: 2018-11-12

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
Test System: EVERFINE G0-2000B_V1 SYSTEM V2.0.406.11
Humidity: 65.0%
Test Distance: 8.000m [K=0.7063]
Remarks:

ZONAL FLUX DIAGRAM

ZONAL FLUX DIAGRAM:

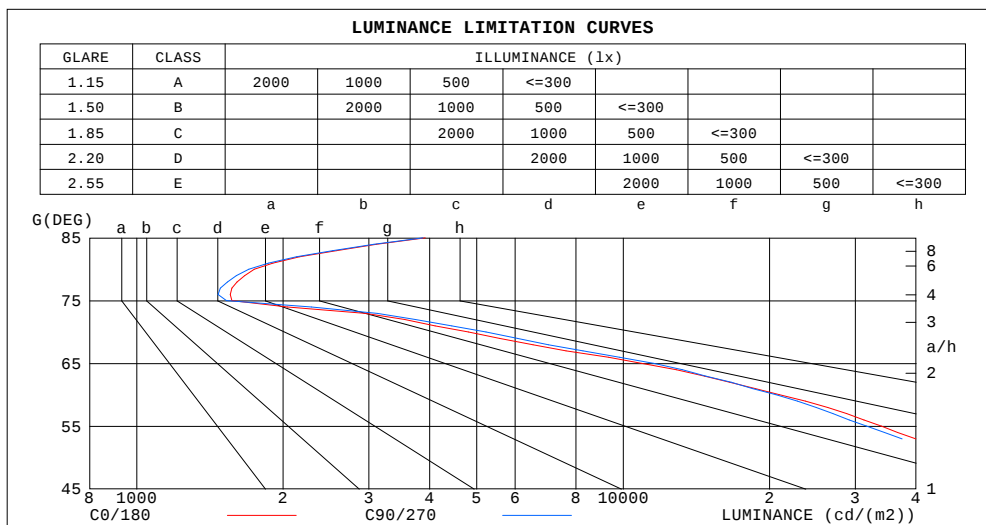
γ	C0	C45	C90	C135	C180	C225	C270	C315	γ	Φ zone	Φ total	%lum, lamp
10	2005	1996	2002	2002	2057	2026	2012	2004	0- 10	194.7	194.7	7.91,7.91
20	1718	1717	1728	1714	1811	1781	1790	1794	10- 20	536.6	731.3	29.7,29.7
30	1153	1166	1161	1117	1255	1229	1249	1267	20- 30	685.0	1416	57.5,57.5
40	531.9	544.5	527.2	491.5	601.3	583.4	591.0	616.0	30- 40	536.1	1952	79.3,79.3
50	196.9	198.3	185.9	173.8	227.2	215.7	213.5	228.1	40- 50	271.6	2224	90.3,90.3
60	62.90	65.46	61.82	55.76	76.48	73.39	74.81	79.85	50- 60	112.1	2336	94.9,94.9
70	9.861	10.57	10.73	8.730	13.94	13.55	15.61	16.73	60- 70	34.66	2371	96.3,96.3
80	1.819	1.831	1.771	1.749	4.307	4.266	4.213	4.277	70- 80	5.965	2377	96.6,96.6
90	2.697	2.649	2.694	2.763	4.757	4.737	4.661	4.575	80- 90	3.496	2380	96.7,96.7
100	4.812	4.747	4.809	4.894	6.208	6.186	6.085	5.958	90-100	4.918	2385	96.9,96.9
110	7.807	7.704	7.761	7.856	8.214	8.179	8.048	7.892	100-110	7.007	2392	97.2,97.2
120	11.53	11.35	11.35	11.51	10.96	10.93	10.74	10.54	110-120	9.366	2402	97.6,97.6
130	16.11	15.81	15.68	15.96	14.65	14.56	14.28	14.09	120-130	11.67	2413	98.08
140	20.83	20.46	20.27	20.53	18.94	18.73	18.34	18.23	130-140	13.37	2427	98.6,98.6
150	24.73	24.33	24.16	24.15	22.87	22.51	22.18	22.05	140-150	13.47	2440	99.1,99.1
160	27.03	26.68	26.46	26.23	25.66	25.06	24.78	24.66	150-160	11.38	2452	99.6,99.6
170	28.95	28.38	28.09	27.96	27.92	27.13	26.75	26.67	160-170	7.539	2459	99.9,99.9
180	30.17	29.37	28.98	28.90	30.30	29.38	28.89	28.91	170-180	2.703	2462	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:2018-11-12

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
Test System:EVERFINE G0-2000B_V1 SYSTEM V2.0.406.11
Humidity:65.0%
Test Distance:8.000m [K=0.7063]
Remarks:

LUMINANCE LIMITATION CURVES

Test:U:220.50V I:0.1130A P:23.600W PF:0.9470 Freq:50.00Hz Lamp Flux:2461.75x1 lm		
NAME: PS-TL25W40KD6080RA-D	TYPE: LED	
MFR.:		



LUMINANCE cd/(m2)		
G(DEG)	C0/180	C90/270
85	3920	3878
80	1746	1700
75	1569	1529
70	4805	5227
65	10915	11551
60	20967	20608
55	33931	31638
50	51043	48200
45	77440	74465

C Range: 0 - 360DEG
C Interval: 30.0DEG
Test Speed: HIGH
Temperature: 25.3DEG
Operators: DAMIN
Test Date: 2018-11-12

γ Range: 0 - 180DEG
γ Interval: 1.0DEG
Test System: EVERFINE G0-2000B_V1 SYSTEM V2.0.406.11
Humidity: 65.0%
Test Distance: 8.000m [K=0.7063]
Remarks:

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=0.7063]
Remarks:

WEC AND CCEC

Test:U:220.50V I:0.1130A P:23.600W PF:0.9470 Freq:50.00Hz Lamp Flux:2461.75x1 lm		
NAME: PS-TL25W40KD6080RA-D	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	.199	.113	.036	.191	.109	.035	.176	.101	.032	.163	.094	.030	.151	.087	.028		
2.0	.192	.105	.032	.185	.102	.031	.173	.096	.030	.161	.090	.028	.150	.085	.027		
3.0	.183	.097	.029	.177	.095	.029	.166	.090	.027	.156	.086	.026	.147	.081	.025		
4.0	.174	.091	.027	.169	.089	.026	.160	.085	.025	.151	.081	.024	.142	.077	.024		
5.0	.166	.084	.024	.161	.083	.024	.153	.079	.023	.145	.076	.023	.137	.073	.022		
6.0	.158	.079	.023	.154	.078	.022	.146	.075	.022	.139	.072	.021	.132	.070	.021		
7.0	.150	.074	.021	.146	.073	.021	.140	.071	.020	.133	.068	.020	.127	.066	.019		
8.0	.143	.070	.020	.140	.069	.019	.134	.067	.019	.128	.065	.019	.122	.063	.018		
9.0	.136	.066	.018	.133	.065	.018	.128	.063	.018	.123	.061	.018	.118	.060	.017		
10.0	.130	.062	.017	.128	.062	.017	.123	.060	.017	.118	.058	.017	.113	.057	.016		

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	.216	.216	.216	.184	.184	.184	.126	.126	.126	.072	.072	.072	.023	.023	.023	
1.0	.198	.183	.169	.169	.157	.145	.116	.108	.100	.067	.062	.058	.021	.020	.019	
2.0	.184	.158	.136	.158	.136	.117	.108	.094	.082	.062	.055	.048	.020	.018	.016	
3.0	.173	.139	.112	.149	.120	.097	.102	.084	.068	.059	.049	.040	.019	.016	.013	
4.0	.164	.125	.095	.141	.108	.083	.097	.075	.058	.056	.044	.034	.018	.014	.011	
5.0	.156	.114	.083	.134	.099	.072	.092	.069	.051	.054	.040	.030	.017	.013	.010	
6.0	.149	.105	.073	.128	.091	.064	.089	.064	.045	.051	.037	.027	.017	.012	.009	
7.0	.143	.098	.066	.123	.085	.057	.085	.059	.041	.049	.035	.024	.016	.011	.008	
8.0	.137	.092	.060	.118	.080	.053	.082	.056	.037	.048	.033	.022	.015	.011	.007	
9.0	.132	.087	.056	.114	.075	.049	.079	.053	.035	.046	.031	.021	.015	.010	.007	
10.0	.128	.082	.052	.110	.072	.046	.076	.050	.032	.045	.030	.019	.014	.010	.006	

C Range: 0 - 360DEG
C Interval: 30.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:DAMIN
Test Date:2018-11-12

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=0.7063]
Remarks:

UGR(Unified Glare Rating) Table

Test:U:220.50V I:0.1130A P:23.600W PF:0.9470 Freq:50.00Hz Lamp Flux:2461.75x1 lm										
NAME: PS-TL25W40KD6080RA-D					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	20.4	21.5	20.7	21.7	22.0	20.3	21.4	20.6	21.6	21.8
3H	20.3	21.3	20.6	21.5	21.8	20.2	21.1	20.5	21.4	21.7
4H	20.2	21.1	20.5	21.4	21.7	20.1	21.0	20.4	21.3	21.6
6H	20.1	20.9	20.5	21.3	21.6	20.0	20.8	20.3	21.1	21.5
8H	20.1	20.9	20.4	21.2	21.5	19.9	20.7	20.3	21.1	21.4
12H	20.0	20.8	20.4	21.1	21.5	19.9	20.7	20.3	21.0	21.3
4H 2H	20.3	21.2	20.6	21.5	21.8	20.2	21.1	20.5	21.3	21.6
3H	20.1	20.9	20.5	21.2	21.6	20.0	20.8	20.4	21.1	21.5
4H	20.0	20.7	20.4	21.1	21.5	19.9	20.6	20.3	21.0	21.4
6H	19.9	20.5	20.4	20.9	21.4	19.8	20.4	20.3	20.8	21.2
8H	19.9	20.5	20.3	20.9	21.3	19.8	20.3	20.2	20.8	21.2
12H	19.8	20.4	20.3	20.8	21.2	19.7	20.2	20.2	20.7	21.1
8H 4H	19.9	20.5	20.3	20.9	21.3	19.8	20.3	20.2	20.8	21.2
6H	19.8	20.2	20.3	20.7	21.2	19.7	20.1	20.2	20.6	21.1
8H	19.7	20.1	20.2	20.6	21.1	19.6	20.0	20.1	20.5	21.0
12H	19.7	20.0	20.2	20.5	21.1	19.6	19.9	20.1	20.4	21.0
12H 4H	19.8	20.3	20.3	20.8	21.2	19.7	20.2	20.2	20.7	21.1
6H	19.7	20.1	20.2	20.6	21.1	19.6	20.0	20.1	20.5	21.0
8H	19.7	20.0	20.2	20.5	21.1	19.6	19.9	20.1	20.4	21.0
Variations with the observer position at spacings:										
S = 1.0H	+ 2.0 / - 4.6					+ 2.0 / - 4.9				
1.5H	+ 2.9 / - 3.0					+ 3.0 / - 3.1				
2.0H	+ 3.9 / - 5.1					+ 3.9 / - 5.0				

CIE Pub.117, 2462 lm Total Lamp Luminous Flux Correct ($8\log(F/F_0) = 3.1$)

C Range: 0 - 360DEG
C Interval: 30.0DEG
Test Speed: HIGH
Temperature: 25.3DEG
Operators: DAMIN
Test Date: 2018-11-12

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=0.7063]
Remarks:

UTILIZATION FACTORS TABLE

Test:U:220.50V I:0.1130A P:23.600W PF:0.9470 Freq:50.00Hz Lamp Flux:2461.75x1 lm		
NAME: PS-TL25W40KD6080RA-D	TYPE: LED	
MFR.:		

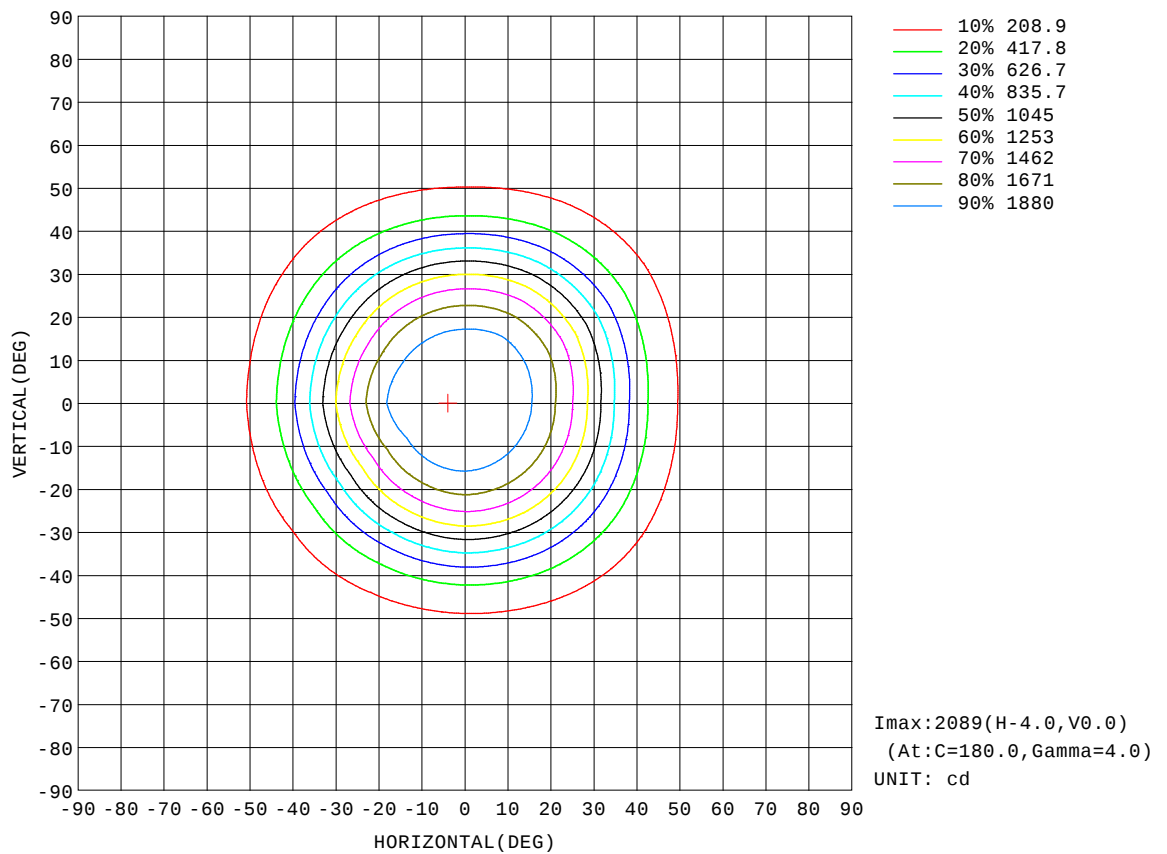
REFLECTANCE										
Ceiling	0.8	0.8	0.8	0.7	0.7	0.7	0.5	0.5	0.5	0
Walls	0.7	0.5	0.3	0.7	0.5	0.3	0.7	0.5	0.3	0
Working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0
ROOM INDEX	UTILIZATION FACTORS(PERCENT) $k(RI) \times RCR = 5$									
$k = 0.60$	78	71	66	78	70	66	77	70	66	61
0.80	87	80	75	86	79	75	84	78	74	70
1.00	93	86	82	92	85	81	90	85	80	75
1.25	98	92	87	97	91	87	94	89	86	80
1.50	101	95	91	100	94	91	97	93	89	84
2.00	105	100	96	103	99	95	100	96	93	87
2.50	107	102	99	105	101	98	101	98	95	88
3.00	109	105	102	107	103	100	103	100	98	90
4.00	111	108	105	109	106	104	105	102	100	92
5.00	113	110	108	110	108	106	106	104	102	93
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: 2018-11-12

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
Test System: EVERFINE G0-2000B_V1 SYSTEM V2.0.406.11
Humidity: 65.0%
Test Distance: 8.000m [K=0.7063]
Remarks:

ISOCANDELA DIAGRAM

Test:U:220.50V I:0.1130A P:23.600W PF:0.9470 Freq:50.00Hz Lamp Flux:2461.75x1 lm		
NAME: PS-TL25W40KD6080RA-D	TYPE: LED	
MFR.:		



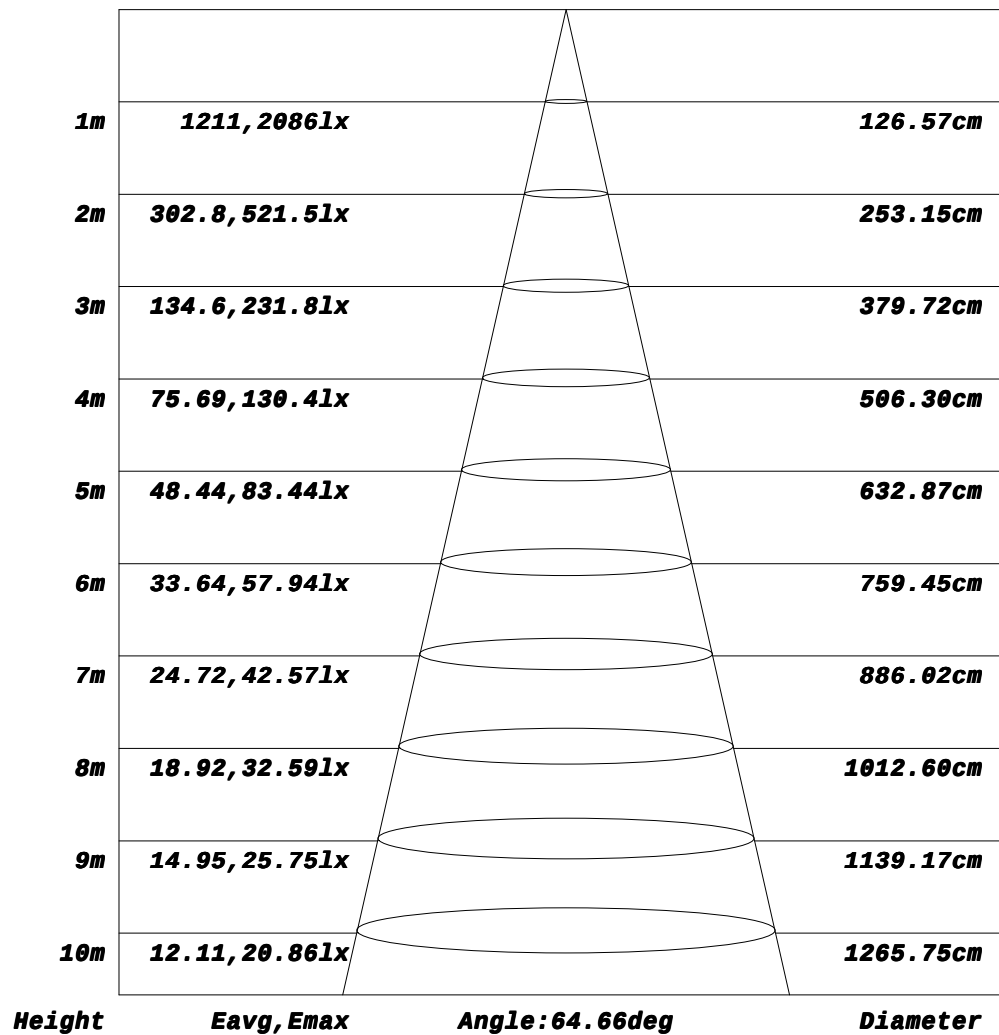
C Range: 0 - 360DEG
C Interval: 30.0DEG
Test Speed: HIGH
Temperature: 25.3DEG
Operators: DAMIN
Test Date: 2018-11-12

γ Range: 0 - 180DEG
γ Interval: 1.0DEG
Test System: EVERFINE G0-2000B_V1 SYSTEM V2.0.406.11
Humidity: 65.0%
Test Distance: 8.000m [K=0.7063]
Remarks:

AAI Figure

Test:U:220.50V I:0.1130A P:23.600W PF:0.9470 Freq:50.00Hz Lamp Flux:2461.75x1 lm		
NAME: PS-TL25W40KD6080RA-D	TYPE: LED	
MFR.:		

Flux out:1605 lm



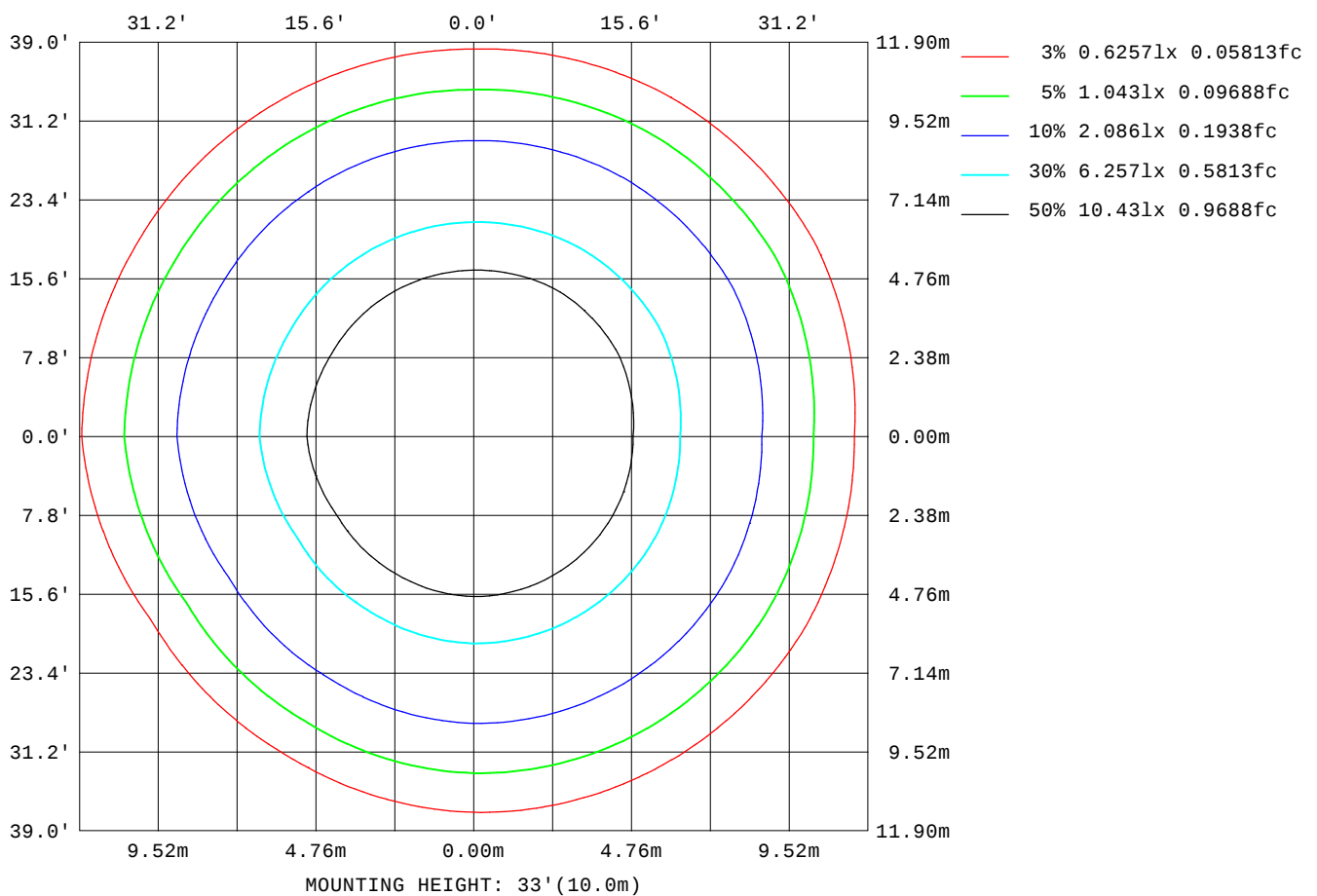
Note: The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

C Range: 0 - 360DEG
C Interval: 30.0DEG
Test Speed: HIGH
Temperature: 25.3DEG
Operators: DAMIN
Test Date: 2018-11-12

γ Range: 0 - 180DEG
γ Interval: 1.0DEG
Test System: EVERFINE G0-2000B_V1 SYSTEM V2.0.406.11
Humidity: 65.0%
Test Distance: 8.000m [K=0.7063]
Remarks:

ISOLUX DIAGRAM

Test:U:220.50V I:0.1130A P:23.600W PF:0.9470 Freq:50.00Hz Lamp Flux:2461.75x1 lm		
NAME: PS-TL25W40KD6080RA-D	TYPE: LED	
MFR.:		



C Range: 0 - 360DEG
C Interval: 30.0DEG
Test Speed: HIGH
Temperature: 25.3DEG
Operators: DAMIN
Test Date: 2018-11-12

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=0.7063]
Remarks:

LED Avg.L Report

Test:U:220.50V I:0.1130A P:23.600W PF:0.9470 Freq:50.00Hz Lamp Flux:2461.75x1 lm		
NAME: PS-TL25W40KD6080RA-D	TYPE: LED	
MFR.:		

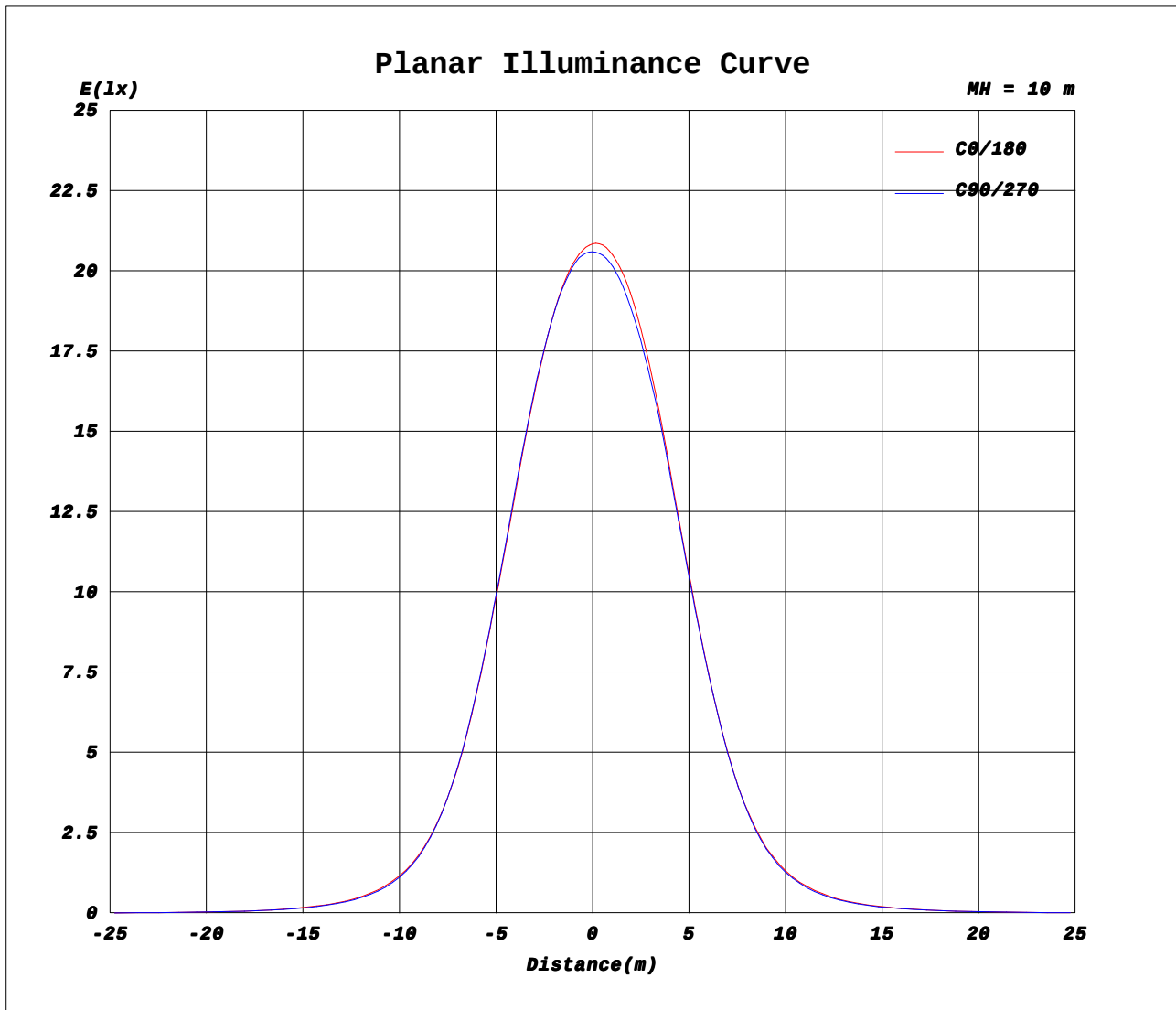
AvgL	cd/m2
L_0~180(65)av	12736
L_0~180(75)av	2599
L_0~180(85)av	6077
L_90~270(65)av	13366
L_90~270(75)av	2790
L_90~270(85)av	5958
L_45(65)av	12934
L_45(75)av	2856
L_45(85)av	5975

Standard: GB/T 29293-2012

C Range: 0 - 360DEG
C Interval: 30.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:DAMIN
Test Date:2018-11-12

γ Range: 0 - 180DEG
γ Interval: 1.0DEG
Test System:EVERFINE G0-2000B_V1 SYSTEM V2.0.406.11
Humidity:65.0%
Test Distance:8.000m [K=0.7063]
Remarks:

Planar Illuminance Curve



C Range: 0 - 360DEG
C Interval: 30.0DEG
Test Speed: HIGH
Temperature: 25.3DEG
Operators: DAMIN
Test Date: 2018-11-12

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
Test System: EVERFINE G0-2000B_V1 SYSTEM V2.0.406.11
Humidity: 65.0%
Test Distance: 8.000m [K=0.7063]
Remarks:

LUMINOUS DISTRIBUTION INTENSITY DATA

Test:U:220.50V I:0.1130A P:23.600W PF:0.9470 Freq:50.00Hz Lamp Flux:2461.75x1 lm											
NAME: PS-TL25W40KD6080RA-D						TYPE: LED					
MFR.:											

Table--1

UNIT: cd

C (DEG) γ (DEG)	0	30	60	90	120	150	180	210	240	270	300	330							
0	2084	2076	2067	2060	2053	2046	2084	2076	2067	2060	2053	2046							
5	2060	2052	2049	2051	2047	2041	2086	2071	2061	2051	2045	2033							
10	2005	1997	1995	2002	2002	2001	2057	2031	2021	2012	2013	1995							
15	1896	1888	1892	1902	1902	1901	1972	1943	1935	1933	1941	1919							
20	1718	1715	1720	1728	1714	1714	1811	1780	1782	1790	1808	1781							
25	1464	1469	1474	1474	1446	1444	1564	1533	1541	1555	1577	1556							
30	1153	1167	1166	1161	1118	1116	1255	1224	1235	1249	1278	1257							
35	816	836	832	824	775	779	914	881	894	909	936	925							
40	532	549	540	527	489	494	601	578	589	591	618	614							
45	329	338	328	316	293	297	373	358	360	360	381	380							
50	197	202	194	186	172	176	227	215	216	213	228	228							
55	117	119	115	109	101	104	134	128	127	127	134	136							
60	62.9	66.3	64.7	61.8	55.8	55.7	76.5	72.5	74.3	74.8	79.6	80.1							
65	27.7	29.9	29.5	29.3	25.7	23.8	36.9	35.0	36.7	38.5	41.5	40.6							
70	9.86	10.6	10.6	10.7	9.13	8.33	13.9	13.2	13.9	15.6	17.2	16.3							
75	2.44	2.71	2.55	2.38	2.21	2.22	5.64	5.39	5.87	6.29	7.20	7.12							
80	1.82	1.86	1.81	1.77	1.76	1.74	4.31	4.28	4.26	4.21	4.27	4.28							
85	2.05	2.00	2.01	2.03	2.09	2.06	4.31	4.30	4.25	4.20	4.16	4.15							
90	2.70	2.64	2.66	2.69	2.78	2.75	4.76	4.76	4.71	4.66	4.58	4.57							
95	3.64	3.58	3.59	3.64	3.74	3.70	5.42	5.42	5.36	5.30	5.20	5.19							
100	4.81	4.74	4.75	4.81	4.91	4.87	6.21	6.22	6.15	6.08	5.96	5.96							
105	6.22	6.12	6.14	6.19	6.32	6.26	7.14	7.14	7.08	6.99	6.86	6.86							
110	7.81	7.71	7.69	7.76	7.88	7.84	8.21	8.22	8.14	8.05	7.89	7.89							
115	9.60	9.48	9.44	9.50	9.63	9.60	9.49	9.50	9.40	9.29	9.11	9.12							
120	11.5	11.4	11.3	11.3	11.5	11.5	11.0	11.0	10.9	10.7	10.5	10.6							
125	13.7	13.5	13.4	13.4	13.6	13.6	12.7	12.7	12.6	12.4	12.2	12.2							
130	16.1	15.9	15.8	15.7	16.0	16.0	14.7	14.7	14.5	14.3	14.0	14.1							
135	18.5	18.3	18.1	18.0	18.3	18.3	16.7	16.7	16.5	16.3	16.1	16.2							
140	20.8	20.6	20.3	20.3	20.5	20.6	18.9	18.9	18.6	18.3	18.2	18.3							
145	23.0	22.7	22.4	22.4	22.5	22.6	21.0	20.9	20.6	20.4	20.1	20.3							
150	24.7	24.5	24.1	24.2	24.1	24.2	22.9	22.6	22.4	22.2	22.0	22.2							
155	26.0	25.9	25.5	25.5	25.3	25.4	24.4	24.0	23.9	23.7	23.4	23.6							
160	27.0	26.9	26.5	26.5	26.2	26.2	25.7	25.1	25.0	24.8	24.6	24.7							
165	27.9	27.7	27.3	27.2	27.0	27.0	26.8	26.1	26.0	25.7	25.6	25.7							
170	29.0	28.6	28.2	28.1	28.0	28.0	27.9	27.2	27.0	26.7	26.6	26.7							
175	29.9	29.4	28.9	28.8	28.7	28.8	29.2	28.4	28.2	27.8	27.7	27.9							
180	30.2	29.6	29.1	29.0	28.8	29.0	30.3	29.5	29.2	28.9	28.8	29.0							

C Range: 0 - 360DEG
C Interval: 30.0DEG
Test Speed: HIGH
Temperature: 25.3DEG
Operators: DAMIN
Test Date: 2018-11-12

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=0.7063]
Remarks: