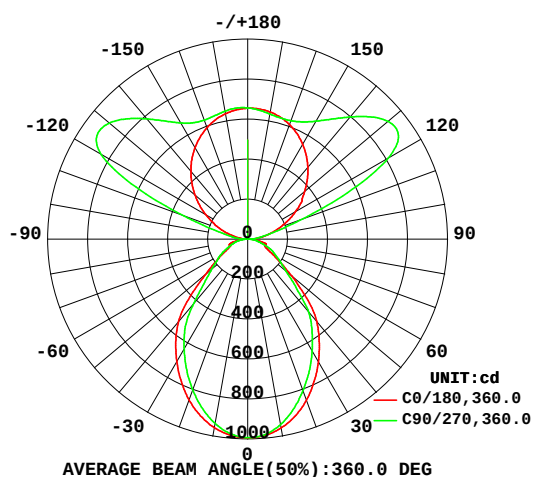


LUMINAIRE PHOTOMETRIC TEST REPORT

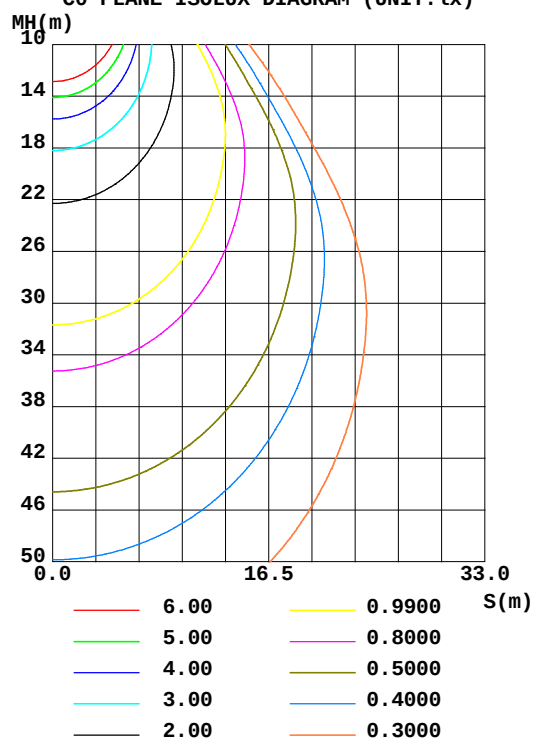
Test:U:220.7V I:0.1740A P:37.70W PF:0.9800 Lamp Flux:4400.54x1 lm		
NAME: 40W 4573	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.:	SUR.:	Shielding Angle:

DATA OF LAMP		PHOTOMETRIC DATA Eff: 116.73 lm/W			
MODEL		I _{max} (cd)	996.4	S/MH(C0/180)	1.09
NOMINAL POWER(W)		LOR(%)	100.0	S/MH(C90/270)	1.01
RATED VOLTAGE(V)		TOTAL FLUX(lm)	4400.5	η UP, DN(C0-180)	30.5, 19.6
NOMINAL FLUX(lm)	4400.54	CIE CLASS	SEMI-IND.	η UP, DN(C180-360)	29.8, 20.0
LAMPS INSIDE	1	η up(%)	60.3	CIBSE SHR NOM	1.00
TEST VOLTAGE(V)		η down(%)	39.7	CIBSE SHR MAX	1.15

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:
Test Date:

γ Range: 0 - 180DEG
γ Interval: 0.5DEG
Test System: EVERFINE G0-2000_V1 SYSTEM V2.0.295T
Humidity: 65.0%
Test Distance: 9.460m [K=1.0571]
Remarks:

ZONAL FLUX DIAGRAM

ZONAL FLUX DIAGRAM:

γ	C0	C45	C90	C135	C180	C225	C270	C315	γ	ϕ zone	ϕ total	%lum, lamp
5	985.0	981.5	977.8	984.0	985.8	981.7	981.9	985.5	0- 5	23.64	23.64	0.54, 0.54
10	958.3	949.6	937.3	949.7	959.6	948.7	942.9	952.0	5- 10	69.12	92.76	2.11, 2.11
15	915.1	899.7	877.2	896.2	916.9	897.0	882.3	899.3	10- 15	109.5	202.3	4.6, 4.6
20	857.2	835.4	804.0	828.9	858.4	831.4	808.2	833.0	15- 20	142.4	344.7	7.83, 7.83
25	787.4	762.3	722.9	753.2	787.2	756.5	729.6	758.2	20- 25	166.4	511.2	11.6, 11.6
30	709.8	684.4	636.7	674.4	708.2	678.0	645.7	680.5	25- 30	181.2	692.3	15.7, 15.7
35	627.8	600.5	547.7	587.6	624.8	599.5	562.2	600.0	30- 35	186.9	879.2	20, 20
40	538.1	493.0	419.7	484.1	538.1	511.4	474.8	511.1	35- 40	182.2	1061	24.1, 24.1
45	409.9	362.8	305.0	351.9	418.0	387.6	343.9	380.2	40- 45	160.1	1222	27.8, 27.8
50	276.9	263.5	236.2	243.7	288.7	270.2	251.9	260.0	45- 50	126.2	1348	30.6, 30.6
55	193.0	194.5	187.3	174.8	193.3	188.7	200.7	185.0	50- 55	96.59	1444	32.8, 32.8
60	139.8	140.8	154.3	132.1	132.8	152.5	161.4	141.6	55- 60	76.91	1521	34.6, 34.6
65	105.6	124.3	117.9	110.5	100.7	125.9	132.2	113.8	60- 65	63.24	1584	36, 36
70	96.95	105.1	88.16	100.5	91.38	105.1	95.13	100.8	65- 70	54.07	1638	37.2, 37.2
75	92.53	77.99	66.86	76.66	91.02	79.11	61.74	84.85	70- 75	46.58	1685	38.3, 38.3
80	60.82	47.91	41.31	45.20	60.66	48.23	43.16	53.89	75- 80	34.72	1720	39.1, 39.1
85	33.84	18.62	14.68	17.91	30.19	21.02	15.18	25.18	80- 85	19.21	1739	39.5, 39.5
90	4.494	5.049	7.353	7.639	4.671	4.934	5.112	9.857	85- 90	7.169	1746	39.7, 39.7
95	21.43	44.10	50.42	69.22	41.85	49.95	34.19	31.65	90- 95	13.39	1760	40, 40
100	55.01	125.4	87.72	214.0	79.61	162.3	71.36	123.8	95-100	40.82	1800	40.9, 40.9
105	95.81	303.3	162.5	368.0	123.7	352.8	134.4	292.4	100-105	93.75	1894	43, 43
110	142.4	490.6	341.6	468.0	172.5	518.2	279.0	416.3	105-110	157.1	2051	46.6, 46.6
115	187.0	595.2	617.1	509.9	224.7	600.4	551.0	482.6	110-115	214.9	2266	51.5, 51.5
120	239.6	622.4	844.7	523.1	278.6	620.1	812.5	505.0	115-120	255.8	2522	57.3, 57.3
125	292.7	616.0	917.3	526.2	332.3	612.6	919.4	511.1	120-125	269.3	2791	63.4, 63.4
130	344.8	599.6	903.2	528.6	373.0	598.0	916.4	514.6	125-130	260.4	3052	69.3, 69.3
135	395.2	584.7	851.4	534.1	422.3	586.7	865.4	521.3	130-135	242.1	3294	74.8, 74.8
140	442.8	575.7	785.4	542.7	468.6	580.8	798.1	529.3	135-140	220.0	3514	79.8, 79.8
145	487.8	573.7	721.3	556.0	511.4	580.1	733.2	540.9	140-145	196.7	3710	84.3, 84.3
150	528.0	580.0	671.6	573.9	549.8	585.0	681.3	555.6	145-150	173.5	3804	88.3, 88.3
155	563.9	592.4	642.6	595.0	583.2	594.5	647.6	573.5	150-155	150.4	4034	91.7, 91.7
160	594.4	610.0	634.0	616.1	610.7	609.0	630.8	593.4	155-160	126.9	4161	94.6, 94.6
165	619.4	629.6	639.5	635.4	631.9	625.4	628.4	614.0	160-165	102.1	4263	96.9, 96.9
170	637.4	645.9	650.6	649.2	646.1	641.1	636.1	632.4	165-170	75.31	4339	98.6, 98.6
175	649.2	656.0	658.4	656.1	653.7	653.2	648.1	646.9	170-175	46.32	4385	99.6, 99.6
180	655.1	655.1	655.1	655.1	655.1	655.1	655.1	655.1	175-180	15.65	4401	100, 100
DEG	LUMINOUS INTENSITY:cd									UNIT: lm		

Conical surface Flux(90deg): 1221.5 lm

%lum = 27.8%

%lamp = 27.8%

Conical surface Flux(120deg): 1521.2 lm

%lum = 34.6%

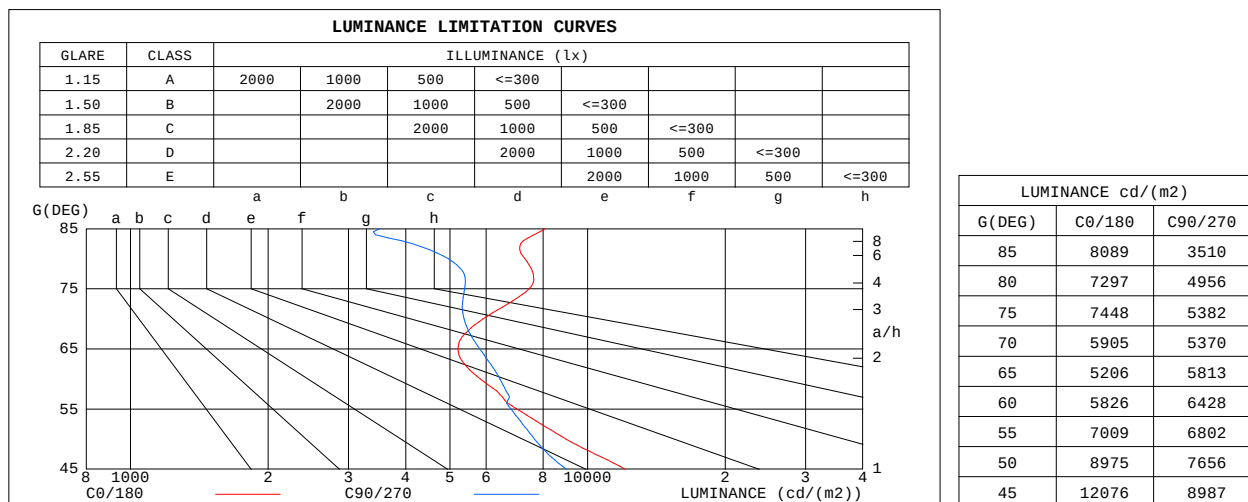
%lamp = 34.6%

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

γ Range: 0 - 180DEG
 γ Interval: 0.5DEG
Test System: EVERFINE G0-2000_V1 SYSTEM V2.0.295T
Humidity: 65.0%
Test Distance: 9.460m [K=1.0571]
Remarks:

LUMINANCE LIMITATION CURVES

Test:U:220.7V I:0.1740A P:37.70W PF:0.9800 Lamp Flux:4400.54x1 lm		
NAME: 40W 4573	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.:	SUR.:	Shielding Angle:



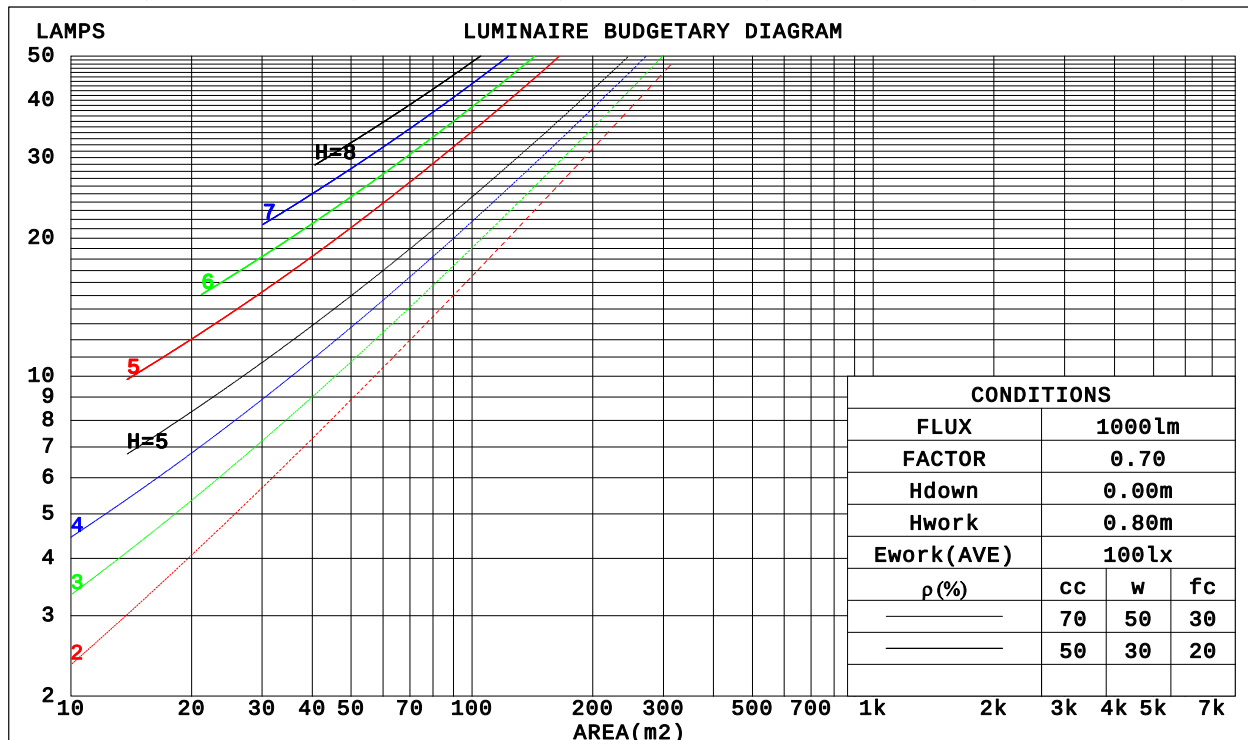
C Range: 0 - 360DEG
C Interval: 5.0DEG
Test Speed: MEDIUM
Temperature: 25.3DEG
Operators:
Test Date:

γ Range: 0 - 180DEG
 γ Interval: 0.5DEG
Test System: EVERFINE G0-2000_V1 SYSTEM V2.0.295T
Humidity: 65.0%
Test Distance: 9.460m [K=1.0571]
Remarks:

CU AND LUMINAIRE BUDGETARY ESTIMATE DIAGRAM

Test:U:220.7V I:0.1740A P:37.70W PF:0.9800 Lamp Flux:4400.54x1 lm		
NAME: 40W 4573	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.:	SUR.:	Shielding Angle:

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	1.05	1.05	1.05	.95	.95	.95	.78	.78	.78	.61	.61	.61	.47	.47	.47	.40
1.0	.92	.88	.85	.84	.81	.78	.69	.67	.65	.55	.53	.52	.42	.41	.40	.34
2.0	.81	.75	.71	.74	.69	.65	.61	.58	.55	.49	.47	.45	.38	.36	.35	.30
3.0	.72	.65	.60	.66	.60	.55	.54	.50	.47	.44	.41	.39	.34	.32	.31	.26
4.0	.64	.57	.51	.59	.52	.47	.49	.44	.40	.40	.36	.34	.31	.29	.27	.23
5.0	.57	.50	.44	.53	.46	.41	.44	.39	.35	.36	.32	.30	.28	.26	.24	.21
6.0	.52	.44	.39	.48	.41	.36	.40	.35	.31	.33	.29	.26	.26	.24	.22	.19
7.0	.47	.39	.34	.43	.37	.32	.36	.31	.28	.30	.26	.24	.24	.21	.20	.17
8.0	.43	.35	.30	.40	.33	.29	.33	.28	.25	.28	.24	.21	.22	.20	.18	.15
9.0	.39	.32	.27	.36	.30	.26	.31	.26	.22	.26	.22	.19	.21	.18	.16	.14
10.0	.36	.29	.25	.33	.27	.23	.28	.24	.20	.24	.20	.18	.19	.17	.15	.13



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

γ Range: 0 - 180DEG
 γ Interval: 0.5DEG
 Test System: EVERFINE GO-2000_V1 SYSTEM V2.0.295T
 Humidity: 65.0%
 Test Distance: 9.460m [K=1.0571]
 Remarks:

WEC AND CCEC

Test:U:220.7V I:0.1740A P:37.70W PF:0.9800 Lamp Flux:4400.54x1 lm					
NAME: 40W 4573			TYPE:		WEIGHT:
SPEC.:			DIM.:		SERIAL No.:
MFR.:			SUR.:		Shielding Angle:

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	.261	.148	.047	.235	.134	.043	.188	.108	.035	.145	.084	.027	.105	.061	.020	
2.0	.242	.133	.041	.219	.121	.037	.176	.098	.030	.137	.077	.024	.100	.057	.018	
3.0	.224	.119	.036	.203	.109	.033	.164	.089	.027	.128	.070	.021	.094	.052	.016	
4.0	.208	.108	.032	.189	.099	.029	.153	.081	.024	.119	.064	.019	.088	.048	.015	
5.0	.194	.099	.029	.176	.090	.026	.143	.074	.022	.112	.059	.018	.083	.044	.013	
6.0	.181	.091	.026	.165	.083	.024	.134	.069	.020	.105	.055	.016	.078	.041	.012	
7.0	.169	.084	.024	.154	.077	.022	.126	.064	.018	.099	.051	.015	.074	.038	.011	
8.0	.159	.078	.022	.145	.071	.020	.118	.059	.017	.093	.047	.014	.070	.036	.010	
9.0	.150	.072	.020	.137	.067	.019	.112	.055	.016	.088	.044	.013	.066	.034	.010	
10.0	.141	.068	.019	.129	.062	.017	.106	.052	.015	.084	.042	.012	.063	.032	.009	

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	.650	.650	.650	.556	.556	.556	.379	.379	.379	.218	.218	.218	.070	.070	.070	
1.0	.640	.620	.602	.548	.532	.518	.375	.366	.358	.216	.212	.208	.069	.068	.067	
2.0	.632	.599	.571	.541	.515	.493	.371	.357	.344	.214	.207	.202	.069	.067	.066	
3.0	.625	.583	.550	.536	.503	.477	.368	.349	.334	.212	.204	.197	.068	.066	.065	
4.0	.618	.571	.535	.530	.493	.465	.365	.344	.328	.211	.201	.194	.068	.066	.064	
5.0	.611	.562	.525	.525	.486	.457	.362	.340	.323	.210	.199	.191	.068	.065	.063	
6.0	.605	.554	.518	.520	.480	.451	.359	.336	.319	.208	.198	.190	.067	.065	.063	
7.0	.600	.548	.512	.516	.475	.447	.356	.333	.316	.207	.196	.188	.067	.064	.062	
8.0	.594	.543	.508	.512	.471	.443	.354	.331	.314	.206	.195	.187	.067	.064	.062	
9.0	.589	.539	.505	.508	.468	.441	.352	.329	.313	.205	.194	.187	.066	.064	.062	
10.0	.584	.535	.503	.504	.465	.439	.350	.327	.312	.204	.193	.186	.066	.064	.062	

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

γ Range: 0 - 180DEG
 γ Interval: 0.5DEG
 Test System:EVERFINE GO-2000_V1 SYSTEM V2.0.295T
 Humidity:65.0%
 Test Distance:9.460m [K=1.0571]
 Remarks:

UGR(Unified Glare Rating) Table

Test:U:220.7V I:0.1740A P:37.70W PF:0.9800 Lamp Flux:4400.54x1 lm											
NAME: 40W 4573					TYPE:			WEIGHT:			
SPEC.:					DIM.:			SERIAL No.:			
MFR.:					SUR.:			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	14.7	15.5	15.7	16.5	17.7	14.4	15.2	15.4	16.2	17.4	
	3H	15.6	16.3	16.6	17.3	18.6	15.3	16.0	16.3	17.0	18.3
	4H	16.3	17.0	17.3	18.0	19.3	15.7	16.4	16.7	17.4	18.7
	6H	16.9	17.5	17.9	18.5	19.8	16.1	16.7	17.1	17.7	19.0
	8H	17.1	17.7	18.1	18.7	20.0	16.1	16.7	17.1	17.7	19.0
	12H	17.3	17.8	18.3	18.8	20.2	16.1	16.7	17.1	17.7	19.0
4H	2H	14.9	15.5	15.8	16.5	17.8	14.6	15.3	15.6	16.3	17.5
	3H	16.1	16.6	17.1	17.6	19.0	15.8	16.3	16.8	17.3	18.7
	4H	16.9	17.4	17.9	18.4	19.8	16.3	16.8	17.4	17.9	19.2
	6H	17.6	18.1	18.7	19.1	20.5	16.8	17.2	17.8	18.3	19.7
	8H	17.9	18.3	18.9	19.3	20.7	16.9	17.3	17.9	18.3	19.7
	12H	18.1	18.5	19.2	19.5	20.9	16.9	17.3	18.0	18.3	19.7
8H	4H	17.0	17.4	18.1	18.5	19.9	16.5	16.9	17.6	18.0	19.4
	6H	17.9	18.2	19.0	19.3	20.7	17.1	17.4	18.2	18.5	19.9
	8H	18.2	18.5	19.3	19.6	21.0	17.3	17.6	18.4	18.6	20.1
	12H	18.5	18.8	19.6	19.9	21.3	17.3	17.6	18.4	18.7	20.1
12H	4H	17.0	17.3	18.0	18.4	19.8	16.5	16.9	17.6	17.9	19.3
	6H	17.9	18.2	19.0	19.2	20.7	17.1	17.4	18.2	18.5	19.9
	8H	18.2	18.5	19.3	19.6	21.0	17.3	17.6	18.4	18.7	20.1
Variations with the observer position at spacings:											
S = 1.0H	+ 0.3 / - 0.4					+ 0.4 / - 0.4					
1.5H	+ 0.3 / - 0.3					+ 0.3 / - 0.4					
2.0H	+ 0.8 / - 0.5					+ 0.4 / - 0.3					

CIE Pub.117 Corrected 4401 lm Total Lamp Luminous Flux.(8log(F/F0) = 5.1)

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

γ Range: 0 - 180DEG
 γ Interval: 0.5DEG
 Test System:EVERFINE GO-2000_V1 SYSTEM V2.0.295T
 Humidity:65.0%
 Test Distance:9.460m [K=1.0571]
 Remarks:

UTILIZATION FACTORS TABLE

Test:U:220.7V I:0.1740A P:37.70W PF:0.9800 Lamp Flux:4400.54x1 lm		
NAME: 40W 4573	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.:	SUR.:	Shielding Angle:

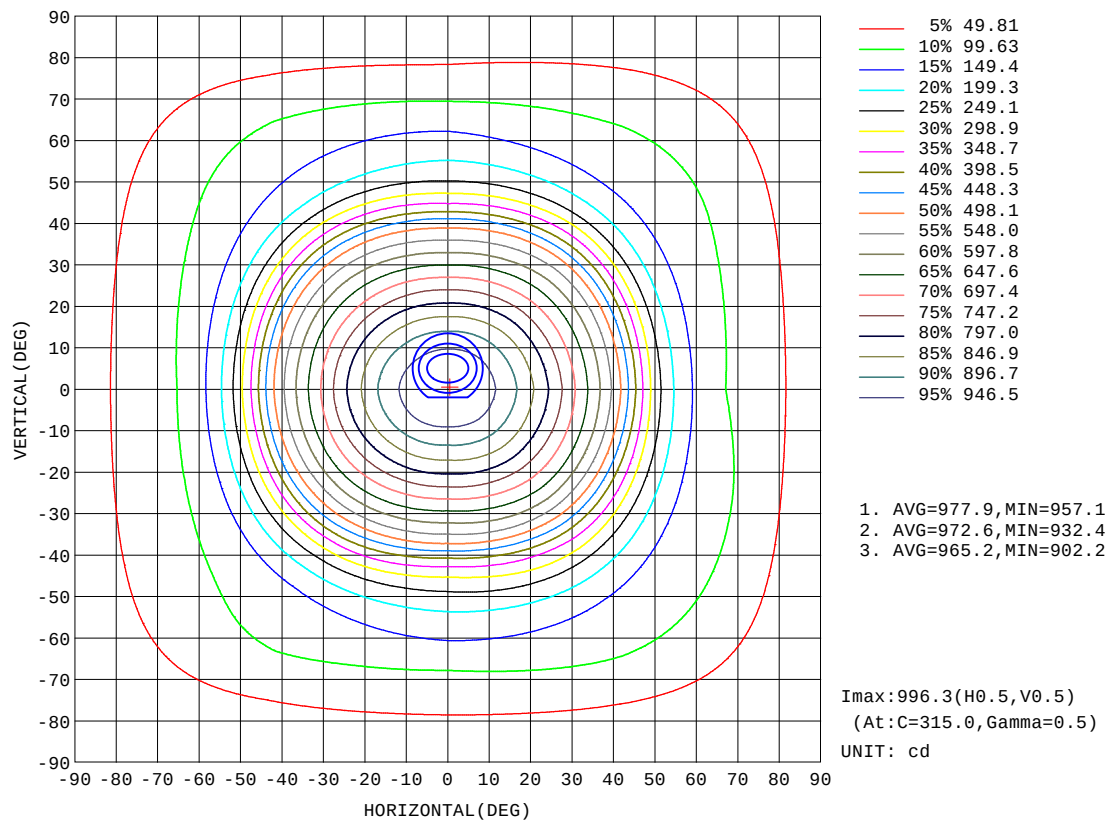
REFLECTANCE										
Ceiling	0.8	0.8	0.8	0.7	0.7	0.7	0.5	0.5	0.5	0
Walls	0.7	0.5	0.3	0.7	0.5	0.3	0.7	0.5	0.3	0
Working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0
ROOM INDEX	UTILIZATION FACTORS(PERCENT) $k(RI) \times RCR = 5$									
k = 0.60	55	43	36	50	40	34	42	34	30	17
0.80	63	52	45	58	48	42	48	41	36	20
1.00	70	59	52	63	55	48	52	46	41	23
1.25	75	66	59	69	60	54	56	51	46	25
1.50	80	71	64	72	65	59	59	54	50	27
2.00	85	78	72	78	71	66	64	59	56	30
2.50	89	82	77	81	75	71	66	62	59	32
3.00	91	85	80	83	78	74	68	64	62	33
4.00	94	90	86	86	82	78	70	67	65	34
5.00	96	92	89	88	84	81	71	69	67	35
ROOM INDEX	UF(total)									Direct
According to DIN EN 13032-2 2004			Ceiling Mounted					SHRNOM = 1.00		

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

γ Range: 0 - 180DEG
 γ Interval: 0.5DEG
 Test System:EVERFINE G0-2000_V1 SYSTEM V2.0.295T
 Humidity:65.0%
 Test Distance:9.460m [K=1.0571]
 Remarks:

ISOCANDELA DIAGRAM

Test:U:220.7V I:0.1740A P:37.70W PF:0.9800 Lamp Flux:4400.54x1 lm		
NAME: 40W 4573	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.:	SUR.:	Shielding Angle:

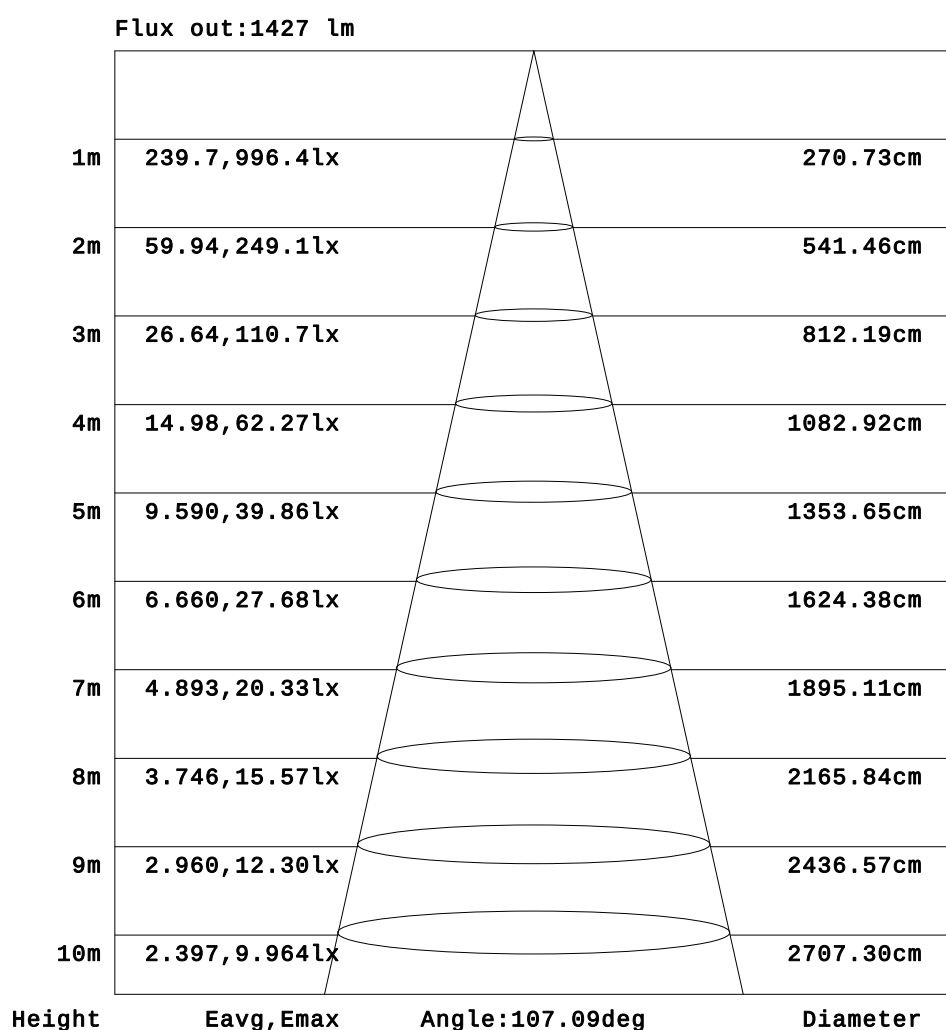


C Range: 0 - 360DEG
C Interval: 5.0DEG
Test Speed: MEDIUM
Temperature:25.3DEG
Operators:
Test Date:

γ Range: 0 - 180DEG
 γ Interval: 0.5DEG
Test System:EVERFINE G0-2000_V1 SYSTEM V2.0.295T
Humidity:65.0%
Test Distance:9.460m [K=1.0571]
Remarks:

AAI Figure

Test:U:220.7V I:0.1740A P:37.70W PF:0.9800 Lamp Flux:4400.54x1 lm		
NAME: 40W 4573	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.:	SUR.:	Shielding Angle:



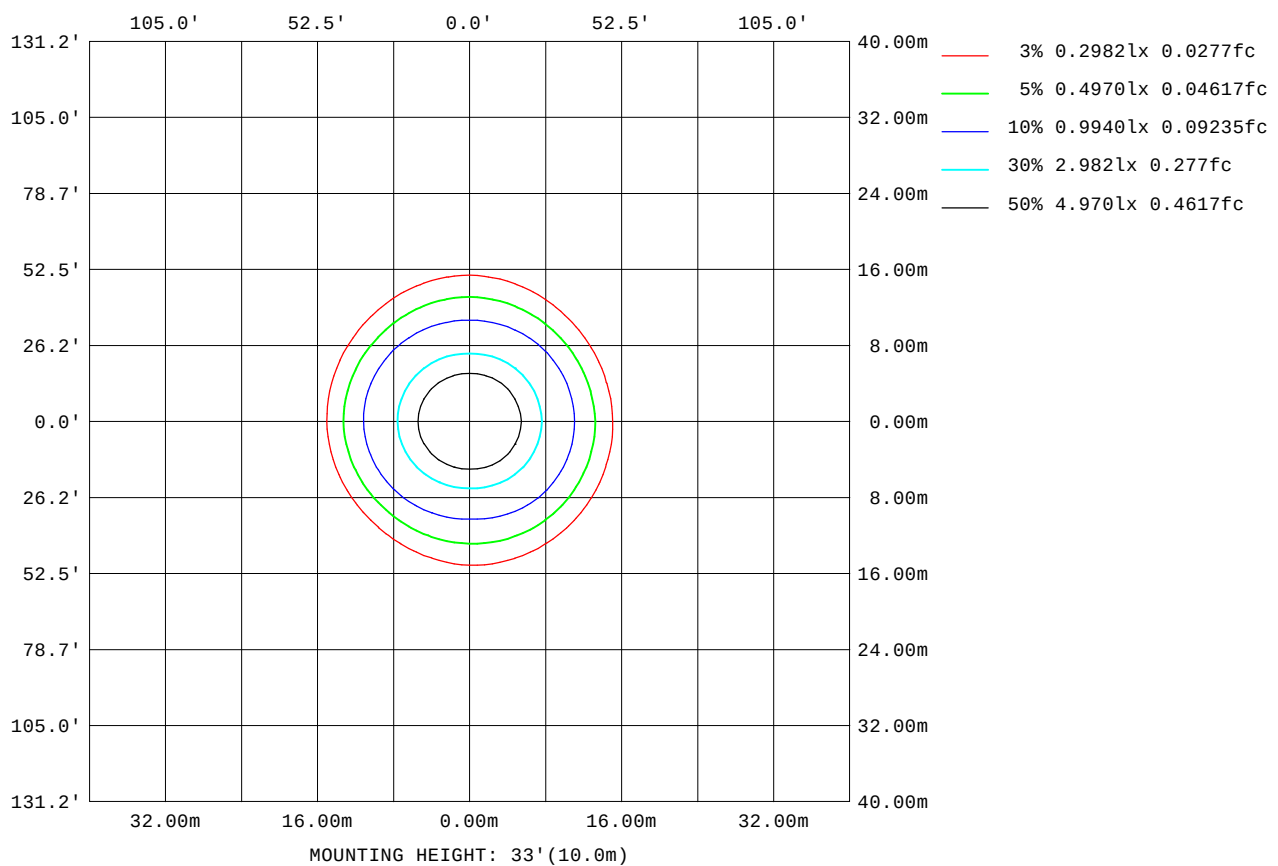
Note:The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

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

γ Range: 0 - 180DEG
 γ Interval: 0.5DEG
 Test System:EVERFINE G0-2000_V1 SYSTEM V2.0.295T
 Humidity:65.0%
 Test Distance:9.460m [K=1.0571]
 Remarks:

ISOLUX DIAGRAM

Test:U:220.7V I:0.1740A P:37.70W PF:0.9800 Lamp Flux:4400.54x1 lm		
NAME: 40W 4573	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.:	SUR.:	Shielding Angle:



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

γ Range: 0 - 180DEG
 γ Interval: 0.5DEG
Test System: EVERFINE G0-2000_V1 SYSTEM V2.0.295T
Humidity: 65.0%
Test Distance: 9.460m [K=1.0571]
Remarks:

LED Avg.L Report

Test:U:220.7V I:0.1740A P:37.70W PF:0.9800 Lamp Flux:4400.54x1 lm		
NAME: 40W 4573	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.:	SUR.:	Shielding Angle:

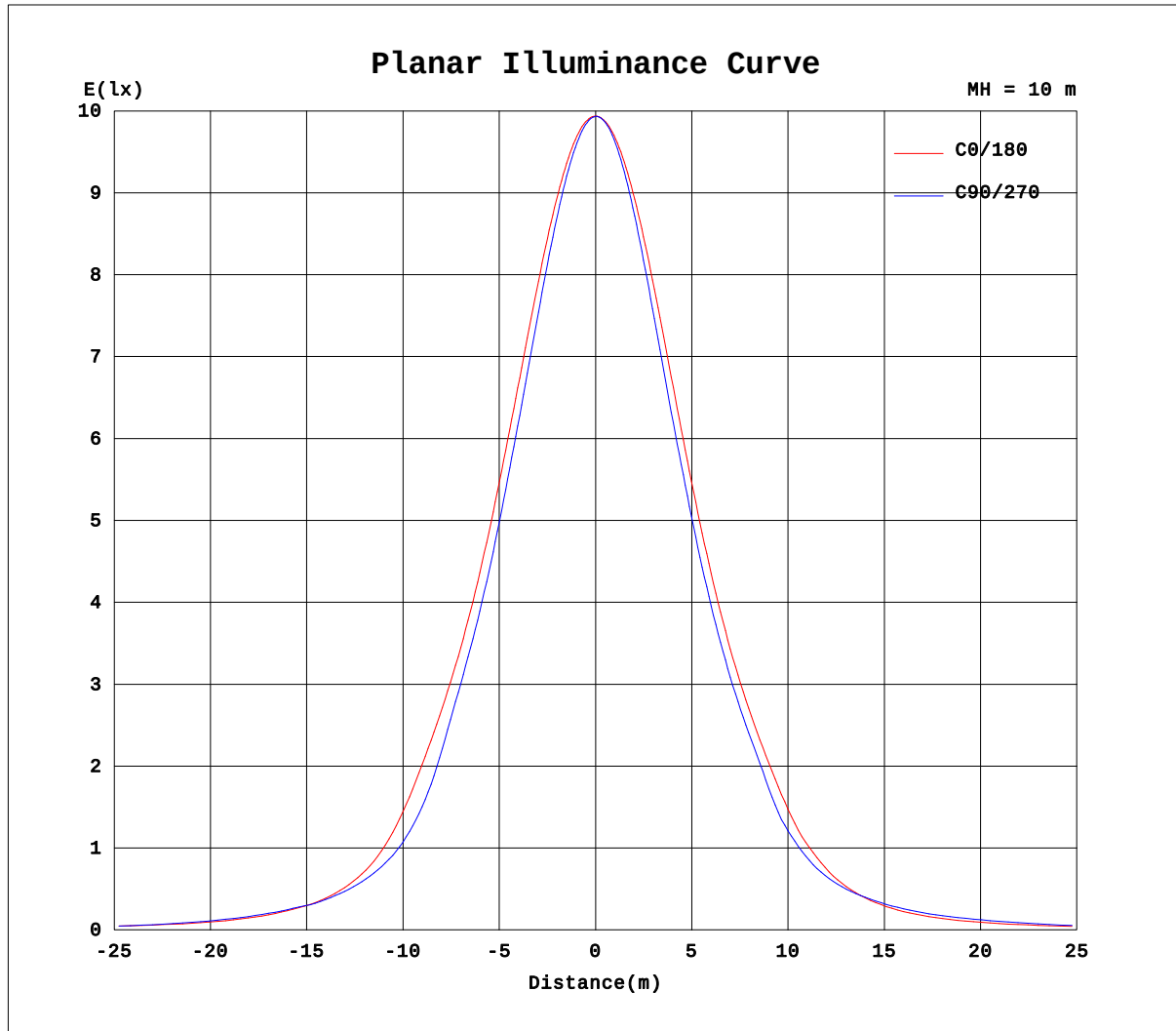
AvgL	cd/m2
L_0~180(65)av	5086
L_0~180(75)av	7387
L_0~180(85)av	7652
L_90~270(65)av	6165
L_90~270(75)av	5176
L_90~270(85)av	3569
L_45(65)av	5848
L_45(75)av	6412
L_45(85)av	4944

Standard: GB/T 29293-2012

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

γ Range: 0 - 180DEG
 γ Interval: 0.5DEG
Test System:EVERFINE G0-2000_V1 SYSTEM V2.0.295T
Humidity:65.0%
Test Distance:9.460m [K=1.0571]
Remarks:

Planar Illuminance Curve



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

γ Range: 0 - 180DEG
 γ Interval: 0.5DEG
Test System: EVERFINE G0-2000_V1 SYSTEM V2.0.295T
Humidity: 65.0%
Test Distance: 9.460m [K=1.0571]
Remarks: