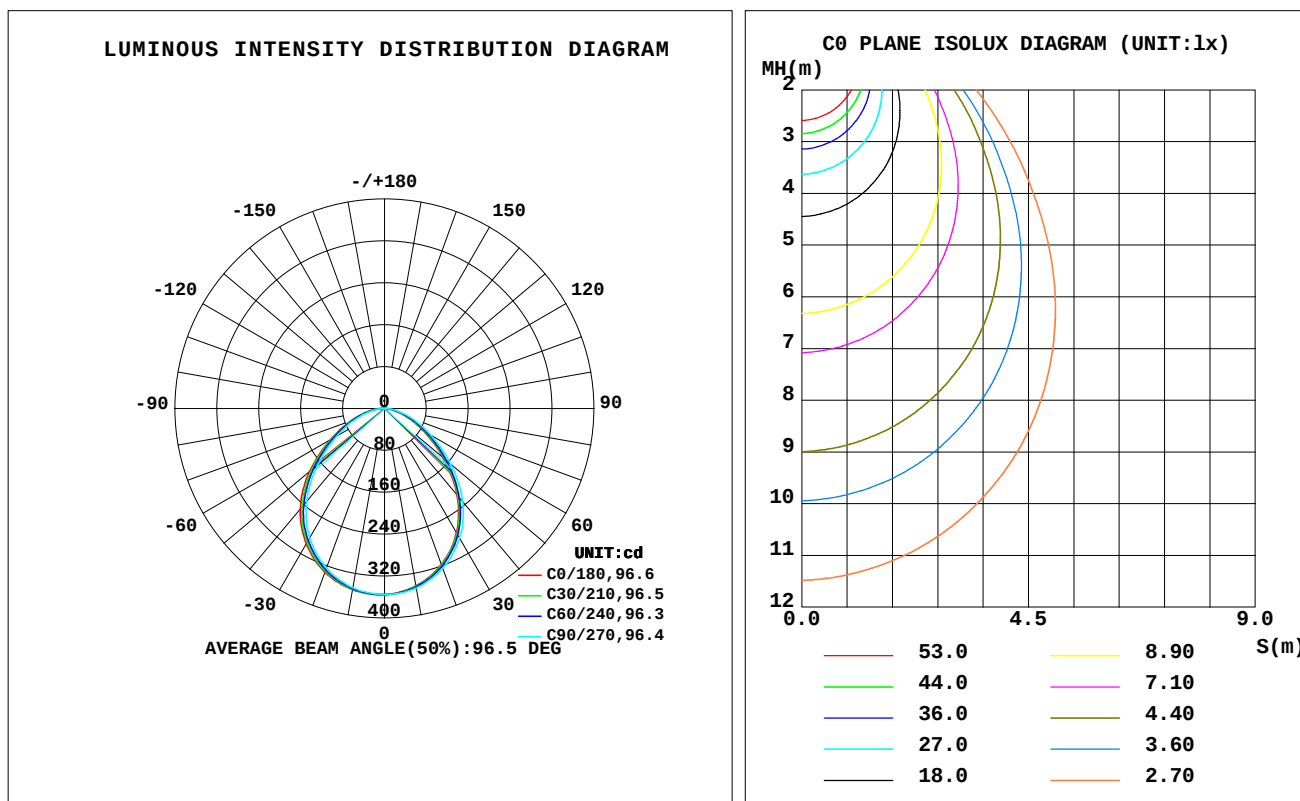


LUMINAIRE PHOTOMETRIC TEST REPORT

NAME: ASD-LRK-GBR-4D10AC-WH-BZ 5000K	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: ASD LIGHTING CORP	SUR.: 0.175*0.175	Shielding Angle:

DATA OF LAMP		PHOTOMETRIC DATA			
		Eff: 87.69 lm/W			
ASD-LRK-GBR-4D10CC-WH-BZ(5000K)	Imax(cd)	355.7	S/MH(C0/180)	1.25	
NOMINAL POWER(W)	10	LOR(%)	100.0	S/MH(C90/270)	1.20
RATED VOLTAGE(V)	120	TOTAL FLUX(lm)	841.65	h UP, DN(C0-180)	0.5, 48.5
NOMINAL FLUX(lm)	841.65	CIE CLASS	DIRECT	h UP, DN(C180-360)	0.4, 50.6
LAMPS INSIDE	1	h up(%)	0.9	CIBSE SHR NOM	1.25
TEST VOLTAGE(V)	120.0	h down(%)	99.1	CIBSE SHR MAX	1.35



C Range: 0 - 360DEG
C Interval: 30.0DEG
Test Speed: HIGH
Temperature: 25.3DEG
Operators:
Test Date: 2021-12-23

g Range: 0 - 180DEG
g Interval: 1.0DEG
Test System: EVERFINE G0-2000B_V1 SYSTEM V2.00.426
Humidity: 65.0%
Test Distance: 8.000m [K=1.0000]
Remarks:

ZONAL FLUX DIAGRAM

ZONAL FLUX DIAGRAM:

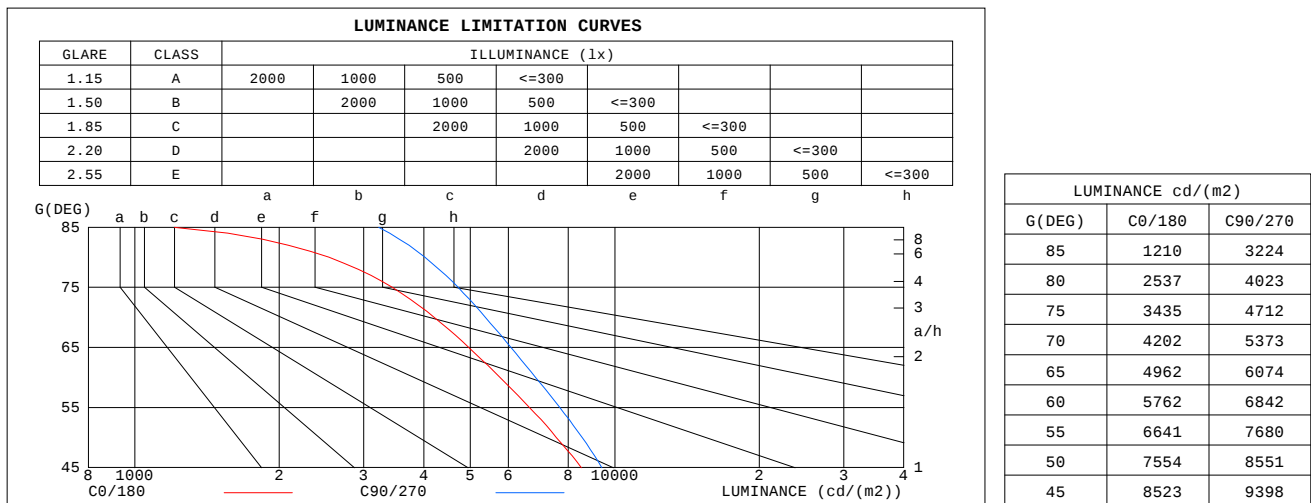
g	C0	C45	C90	C135	C180	C225	C270	C315	g	F zone	F total	%lum, lamp
10	344.0	345.0	348.0	349.7	351.4	350.0	347.7	345.5	0- 10	33.55	33.55	3.99, 3.99
20	316.9	319.3	324.7	329.2	332.8	329.5	324.3	320.6	10- 20	95.30	128.9	15.3, 15.3
30	274.6	278.0	286.2	293.1	298.6	293.6	285.8	280.4	20- 30	141.4	270.2	32.1, 32.1
40	215.2	220.2	232.1	242.0	250.5	242.9	231.5	224.2	30- 40	163.1	433.3	51.5, 51.5
50	145.4	151.7	165.0	176.9	186.7	178.8	166.0	155.9	40- 50	153.9	587.2	69.8, 69.8
60	86.28	91.76	102.7	112.1	119.8	115.3	105.3	94.84	50- 60	119.3	706.5	83.9, 83.9
70	43.04	47.03	55.16	61.89	67.54	64.91	57.44	49.22	60- 70	77.51	784.0	93.2, 93.2
80	13.19	15.53	20.97	25.86	29.87	27.86	22.31	16.87	70- 80	39.71	823.7	97.9, 97.9
90	0.2471	0.2250	0.1894	0.3680	2.349	2.704	0.1945	0.1805	80- 90	10.62	834.3	99.1, 99.1
100	0.5077	0.4814	0.4283	0.3767	0.2925	0.3127	0.3693	0.4129	90-100	0.3412	834.7	99.2, 99.2
110	0.8359	0.8120	0.7439	0.6835	0.5758	0.6051	0.6756	0.7242	100-110	0.5764	835.2	99.2, 99.2
120	1.209	1.181	1.118	1.042	0.9265	0.9515	1.041	1.087	110-120	0.8759	836.1	99.3, 99.3
130	1.569	1.536	1.488	1.414	1.295	1.314	1.415	1.453	120-130	1.121	837.2	99.5, 99.5
140	1.888	1.867	1.825	1.755	1.628	1.640	1.735	1.769	130-140	1.235	838.5	99.6, 99.6
150	2.189	2.164	2.118	2.069	1.961	1.955	2.019	2.062	140-150	1.200	839.7	99.8, 99.8
160	2.455	2.418	2.389	2.344	2.257	2.256	2.307	2.339	150-160	1.017	840.7	99.9, 99.9
170	2.648	2.639	2.627	2.610	2.554	2.549	2.573	2.597	160-170	0.6982	841.4	100, 100
180	2.752	2.744	2.740	2.752	2.752	2.747	2.735	2.752	170-180	0.2541	841.7	100, 100
DEG	LUMINOUS INTENSITY:cd									UNIT:lm		

C Range: 0 - 360DEG
C Interval: 30.0DEG
Test Speed: HIGH
Temperature: 25.3DEG
Operators:
Test Date: 2021-12-23

g Range: 0 - 180DEG
g Interval: 1.0DEG
Test System: EVERFINE G0-2000B_V1 SYSTEM V2.00.426
Humidity: 65.0%
Test Distance: 8.000m [K=1.0000]
Remarks:

LUMINANCE LIMITATION CURVES

NAME: ASD-LRK-GBR-4D10AC-WH-BZ 5000K	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: ASD LIGHTING CORP	SUR.: 0.175*0.175	Shielding Angle:



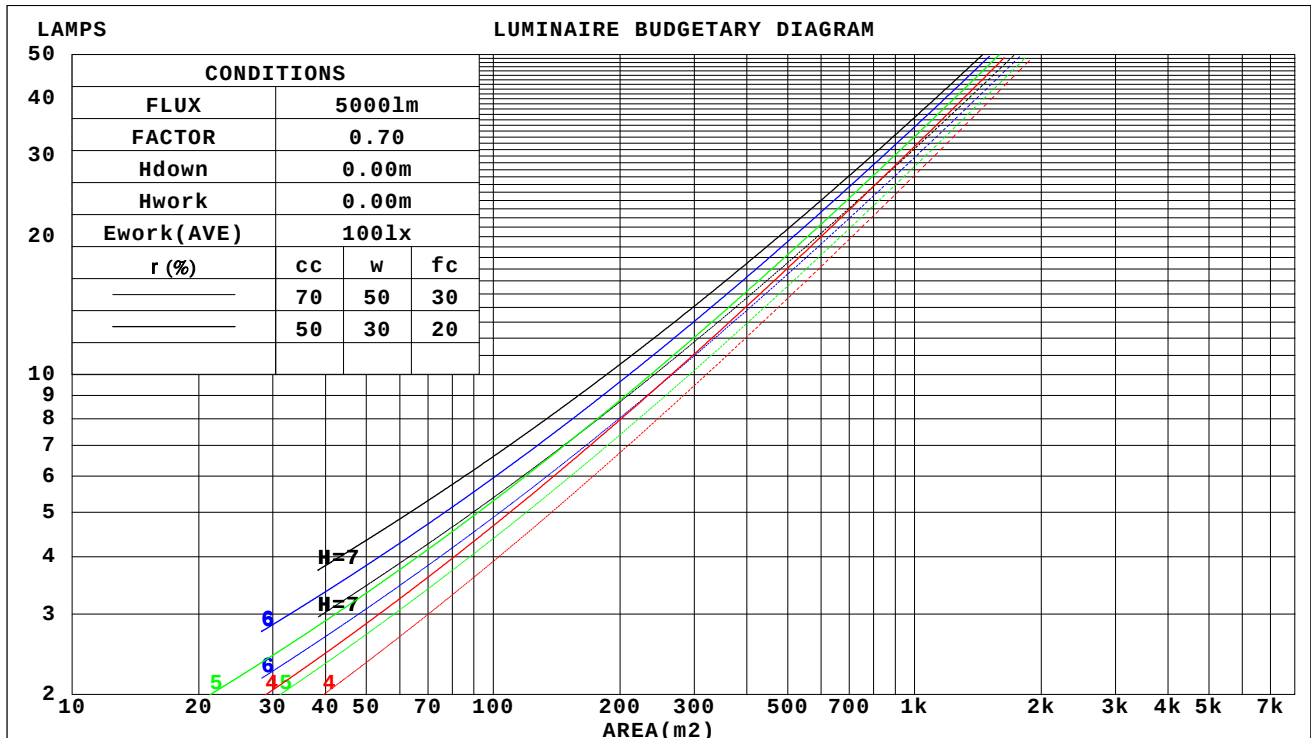
C Range: 0 - 360DEG
C Interval: 30.0DEG
Test Speed: HIGH
Temperature: 25.3DEG
Operators:
Test Date: 2021-12-23

g Range: 0 - 180DEG
g Interval: 1.0DEG
Test System: EVERFINE G0-2000B_V1 SYSTEM V2.00.426
Humidity: 65.0%
Test Distance: 8.000m [K=1.0000]
Remarks:

CU AND LUMINAIRE BUDGETARY ESTIMATE DIAGRAM

NAME: ASD-LRK-GBR-4D10AC-WH-BZ 5000K	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: ASD LIGHTING CORP	SUR.: 0.175*0.175	Shielding Angle:

r cc	80%			70%			50%			30%			10%			0
r w	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	0
r fc	20%			20%			20%			20%			20%			0
RCR	RCR:Room Cavity Ratio															



C Range: 0 - 360DEG
C Interval: 30.0DEG
Test Speed: HIGH
Temperature: 25.3DEG
Operators:
Test Date: 2021-12-23

g Range: 0 - 180DEG
g Interval: 1.0DEG
Test System: EVERFINE GO-2000B_V1 SYSTEM V2.00.426
Humidity: 65.0%
Test Distance: 8.000m [K=1.0000]
Remarks:

WEC AND CCEC

NAME: ASD-LRK-GBR-4D10AC-WH-BZ 5000K	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: ASD LIGHTING CORP	SUR.: 0.175*0.175	Shielding Angle:

r cc	80%			70%			50%			30%			10%			0	
r w	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	0	
r fc	20%			20%			20%			20%			20%			0	
RCR	RCR:Room Cavity Ratio						Wall Exitance Coefficients(WEC)										
0.0																	
1.0	.280	.159	.050	.273	.156	.049	.259	.149	.047	.247	.142	.046	.235	.136	.044		
2.0	.267	.146	.045	.260	.143	.044	.248	.138	.043	.237	.133	.042	.227	.128	.040		
3.0	.249	.133	.040	.244	.130	.039	.233	.126	.038	.223	.122	.038	.214	.119	.037		
4.0	.232	.121	.035	.227	.119	.035	.218	.115	.034	.209	.112	.034	.201	.109	.033		
5.0	.216	.110	.032	.212	.109	.032	.203	.106	.031	.196	.103	.031	.189	.101	.030		
6.0	.202	.101	.029	.198	.100	.029	.190	.098	.028	.184	.095	.028	.177	.093	.028		
7.0	.189	.093	.026	.185	.092	.026	.179	.090	.026	.173	.088	.026	.167	.087	.025		
8.0	.177	.087	.024	.174	.086	.024	.168	.084	.024	.163	.082	.024	.157	.081	.024		
9.0	.167	.081	.023	.164	.080	.022	.159	.078	.022	.154	.077	.022	.149	.076	.022		
10.0	.157	.075	.021	.155	.075	.021	.150	.073	.021	.145	.072	.021	.141	.071	.020		

r cc	80%			70%			50%			30%			10%			0
r w	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	0
r fc	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	.143	.158	.140	.123	.108	.096	.085	.062	.056	.050	.020	.018	.016	
2.0	.176	.139	.108	.150	.119	.093	.103	.083	.065	.059	.048	.038	.019	.016	.012	
3.0	.167	.121	.084	.143	.104	.073	.098	.072	.051	.057	.042	.030	.018	.014	.010	
4.0	.159	.107	.068	.137	.093	.059	.094	.065	.041	.054	.038	.024	.018	.012	.008	
5.0	.152	.097	.056	.131	.084	.049	.090	.059	.034	.052	.034	.020	.017	.011	.007	
6.0	.145	.088	.048	.125	.077	.042	.086	.054	.029	.050	.032	.017	.016	.010	.006	
7.0	.138	.081	.041	.119	.071	.036	.082	.049	.026	.048	.029	.015	.015	.010	.005	
8.0	.132	.076	.037	.114	.066	.032	.079	.046	.023	.046	.027	.014	.015	.009	.004	
9.0	.127	.071	.033	.109	.061	.029	.076	.043	.020	.044	.025	.012	.014	.008	.004	
10.0	.121	.066	.030	.104	.058	.026	.072	.041	.019	.042	.024	.011	.014	.008	.004	

C Range: 0 - 360DEG
C Interval: 30.0DEG
Test Speed: HIGH
Temperature: 25.3DEG
Operators:
Test Date: 2021-12-23

g Range: 0 - 180DEG
g Interval: 1.0DEG
Test System: EVERFINE G0-2000B_V1 SYSTEM V2.00.426
Humidity: 65.0%
Test Distance: 8.000m [K=1.0000]
Remarks:

UGR(Unified Glare Rating) Table

NAME:ASD-LRK-GBR-4D10AC-WH-BZ 5000K						TYPE:			WEIGHT:		
SPEC.:						DIM.:			SERIAL No.:		
MFR.: ASD LIGHTING CORP						SUR.: 0.175*0.175			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	19.3	20.7	19.6	20.9	21.1	19.8	21.3	20.1	21.5	21.7	
	3H	20.1	21.4	20.4	21.7	21.9	20.8	22.2	21.2	22.4	22.6
	4H	20.4	21.6	20.7	21.9	22.1	21.2	22.5	21.5	22.7	23.0
	6H	20.5	21.7	20.8	21.9	22.2	21.5	22.6	21.8	22.9	23.2
	8H	20.5	21.6	20.9	21.9	22.2	21.5	22.7	21.9	23.0	23.3
	12H	20.5	21.6	20.8	21.9	22.2	21.6	22.6	21.9	23.0	23.3
4H	2H	19.7	20.9	20.0	21.2	21.5	20.2	21.4	20.5	21.7	21.9
	3H	20.7	21.8	21.1	22.1	22.4	21.3	22.4	21.7	22.7	23.0
	4H	21.1	22.0	21.4	22.4	22.7	21.8	22.8	22.2	23.1	23.5
	6H	21.3	22.1	21.7	22.5	22.9	22.2	23.0	22.6	23.4	23.8
	8H	21.3	22.1	21.7	22.5	22.9	22.3	23.1	22.7	23.5	23.9
	12H	21.3	22.0	21.7	22.4	22.8	22.3	23.1	22.8	23.5	23.9
8H	4H	21.2	22.0	21.6	22.4	22.8	21.9	22.7	22.3	23.1	23.5
	6H	21.5	22.1	21.9	22.6	23.0	22.3	23.0	22.8	23.4	23.9
	8H	21.6	22.1	22.0	22.6	23.0	22.5	23.1	23.0	23.5	24.0
	12H	21.6	22.1	22.1	22.5	23.0	22.6	23.1	23.1	23.6	24.1
12H	4H	21.2	21.9	21.6	22.3	22.7	21.9	22.6	22.3	23.0	23.4
	6H	21.5	22.1	22.0	22.5	23.0	22.3	22.9	22.8	23.4	23.8
	8H	21.6	22.1	22.1	22.5	23.0	22.5	23.0	23.0	23.5	24.0
Variations with the observer position at spacings(CIE Pub.117):											
S = 1.0H	+ 0.4 / - 0.5					+ 0.3 / - 0.3					
1.5H	+ 0.2 / - 0.3					+ 0.2 / - 0.2					
2.0H	+ 0.6 / - 0.7					+ 0.6 / - 0.6					

CIE Pub.117, 841.7 lm Total Lamp Luminous Flux Correct (8log(F/F0) = -0.6)
Area: 0.03 m2

C Range: 0 - 360DEG
C Interval: 30.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:
Test Date:2021-12-23

g Range: 0 - 180DEG
g Interval: 1.0DEG
Test System:EVERFINE G0-2000B_V1 SYSTEM V2.00.426
Humidity:65.0%
Test Distance:8.000m [K=1.0000]
Remarks:

UTILIZATION FACTORS TABLE

NAME: ASD-LRK-GBR-4D10AC-WH-BZ 5000K	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: ASD LIGHTING CORP	SUR.: 0.175*0.175	Shielding Angle:

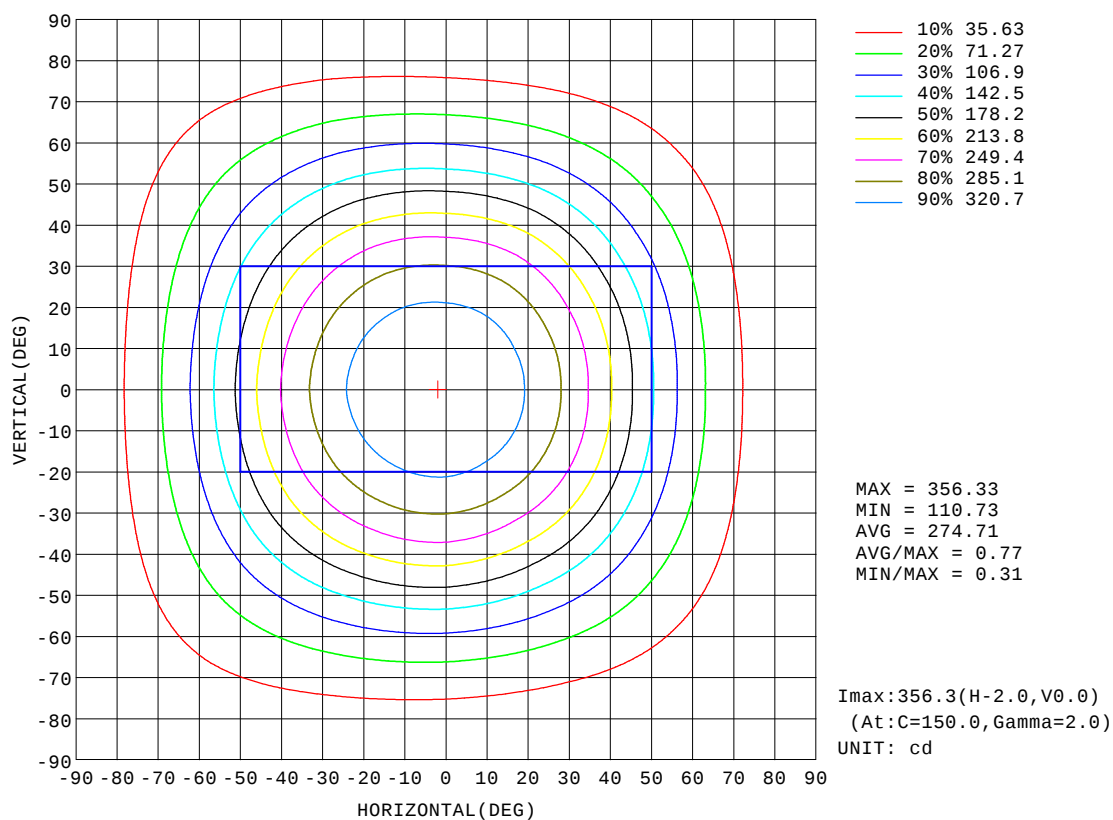
REFLECTANCE										
Ceiling	0.8	0.8	0.8	0.7	0.7	0.7	0.5	0.5	0.5	0
Walls	0.7	0.5	0.3	0.7	0.5	0.3	0.7	0.5	0.3	0
Working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0
ROOM INDEX	UTILIZATION FACTORS(PERCENT) $k(RI) \times RCR = 5$									
k = 0.60	61	50	44	61	50	44	59	50	44	38
0.80	71	61	54	70	60	54	69	59	53	47
1.00	80	69	63	78	69	62	76	70	62	55
1.25	86	77	70	85	76	70	82	75	69	62
1.50	91	82	76	90	81	75	87	79	74	67
2.00	97	90	84	96	88	83	92	86	82	74
2.50	101	94	88	99	92	87	95	90	85	77
3.00	104	98	93	102	96	92	98	93	89	81
4.00	107	102	98	105	101	97	101	97	94	85
5.00	110	105	102	107	103	100	103	100	97	88
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:
Test Date: 2021-12-23

g Range: 0 - 180DEG
g Interval: 1.0DEG
Test System: EVERFINE G0-2000B_V1 SYSTEM V2.00.426
Humidity: 65.0%
Test Distance: 8.000m [K=1.0000]
Remarks:

ISOCANDELA DIAGRAM

NAME: ASD-LRK-GBR-4D10AC-WH-BZ 5000K	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: ASD LIGHTING CORP	SUR.: 0.175*0.175	Shielding Angle:

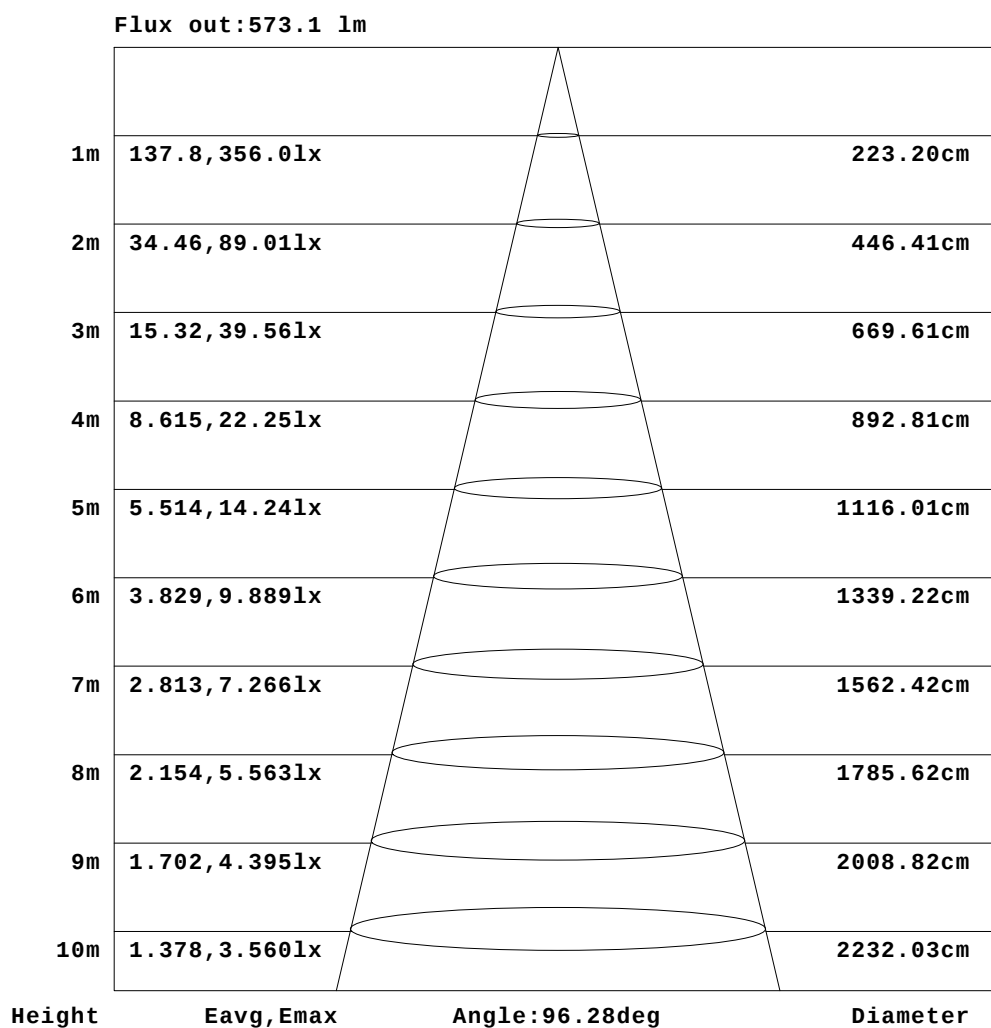


C Range: 0 - 360DEG
C Interval: 30.0DEG
Test Speed: HIGH
Temperature: 25.3DEG
Operators:
Test Date: 2021-12-23

g Range: 0 - 180DEG
g Interval: 1.0DEG
Test System: EVERFINE G0-2000B_V1 SYSTEM V2.00.426
Humidity: 65.0%
Test Distance: 8.000m [K=1.0000]
Remarks:

AAI Figure

NAME: ASD-LRK-GBR-4D10AC-WH-BZ 5000K	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: ASD LIGHTING CORP	SUR.: 0.175*0.175	Shielding Angle:



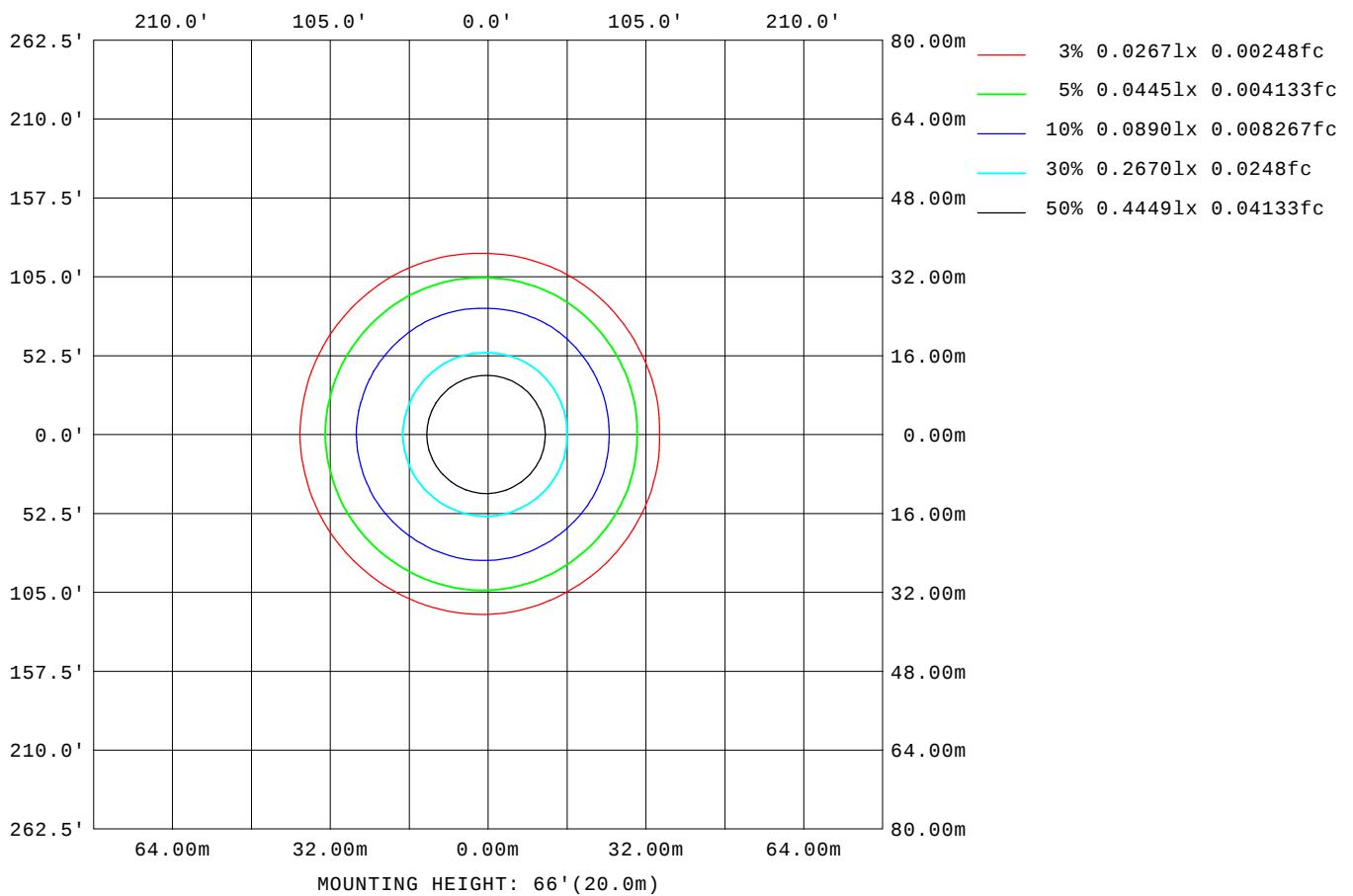
Note: The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

C Range: 0 - 360DEG
 C Interval: 30.0DEG
 Test Speed: HIGH
 Temperature: 25.3DEG
 Operators:
 Test Date: 2021-12-23

g Range: 0 - 180DEG
 g Interval: 1.0DEG
 Test System: EVERFINE G0-2000B_V1 SYSTEM V2.00.426
 Humidity: 65.0%
 Test Distance: 8.000m [K=1.0000]
 Remarks:

ISOLUX DIAGRAM

NAME: ASD-LRK-GBR-4D10AC-WH-BZ 5000K	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: ASD LIGHTING CORP	SUR.: 0.175*0.175	Shielding Angle:



C Range: 0 - 360DEG
 C Interval: 30.0DEG
 Test Speed: HIGH
 Temperature: 25.3DEG
 Operators:
 Test Date: 2021-12-23

g Range: 0 - 180DEG
 g Interval: 1.0DEG
 Test System: EVERFINE G0-2000B_V1 SYSTEM V2.00.426
 Humidity: 65.0%
 Test Distance: 8.000m [K=1.0000]
 Remarks:

LED Avg.L Report

NAME:ASD-LRK-GBR-4D10AC-WH-BZ 5000K	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: ASD LIGHTING CORP	SUR.: 0.175*0.175	Shielding Angle:

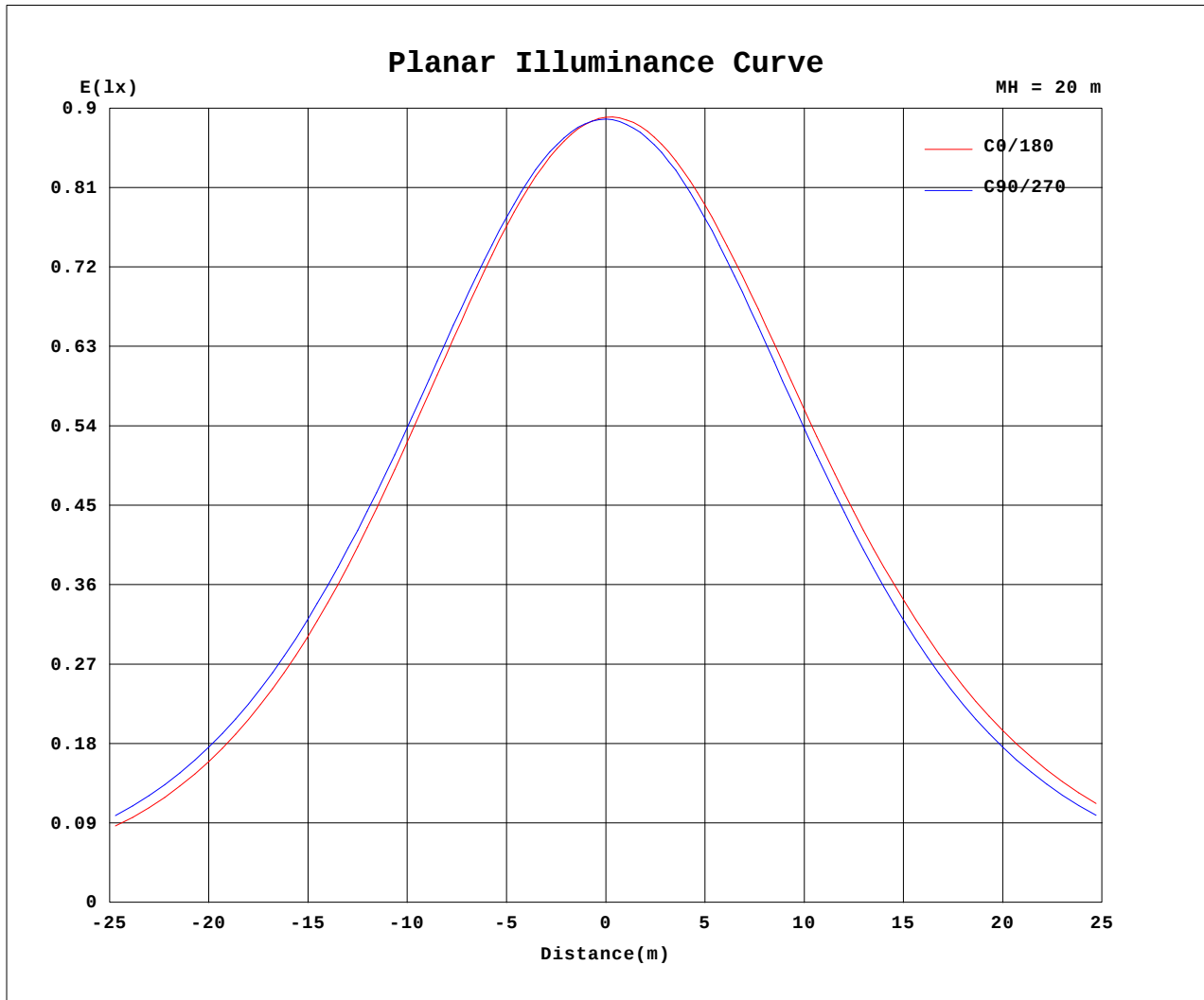
AvgL	cd/m2
L_0~180(65)av	6091
L_0~180(75)av	4754
L_0~180(85)av	3545
L_90~270(65)av	6181
L_90~270(75)av	4831
L_90~270(85)av	3379
L_45(65)av	6134
L_45(75)av	4782
L_45(85)av	3443

Standard: GB/T 29293-2012

C Range: 0 - 360DEG
C Interval: 30.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:
Test Date:2021-12-23

g Range: 0 - 180DEG
g Interval: 1.0DEG
Test System:EVERFINE G0-2000B_V1 SYSTEM V2.00.426
Humidity:65.0%
Test Distance:8.000m [K=1.0000]
Remarks:

Planar Illuminance Curve



C Range: 0 - 360DEG
 C Interval: 30.00DEG
 Test Speed: HIGH
 Temperature: 25.3DEG
 Operators:
 Test Date: 2021-12-23

g Range: 0 - 180DEG
 g Interval: 1.00DEG
 Test System: EVERFINE G0-2000B_V1 SYSTEM V2.00.426
 Humidity: 65.0%
 Test Distance: 8.000m [K=1.0000]
 Remarks:

LUMINOUS DISTRIBUTION INTENSITY DATA

NAME:ASD-LRK-GBR-4D10AC-WH-BZ 5000K	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: ASD LIGHTING CORP	SUR.: 0.175*0.175	Shielding Angle:

Table--1
UNIT: cd

C(DEC) g (DEC)	0	30	60	90	120	150	180	210	240	270	300	330							
0	355	355	355	355	355	355	355	355	355	355	355	355							
5	351	352	352	353	354	355	355	355	354	353	353	352							
10	344	344	346	348	349	351	351	351	349	348	346	345							
15	333	334	335	338	340	343	344	342	341	338	336	334							
20	317	318	320	325	328	331	333	331	328	324	322	319							
25	298	299	302	307	311	315	317	315	312	307	304	300							
30	275	277	280	286	290	296	299	296	292	286	283	278							
35	247	250	253	262	266	274	276	273	268	261	258	251							
40	215	218	222	232	238	246	250	245	240	232	228	220							
45	180	184	189	199	206	216	220	215	209	199	195	186							
50	145	149	154	165	172	182	187	182	176	166	161	151							
55	114	117	123	132	139	147	152	148	143	134	128	119							
60	86.3	89.1	94.4	103	108	116	120	118	113	105	99.1	90.6							
65	62.8	65.2	70.0	77.1	82.0	88.2	91.6	90.1	86.6	79.7	73.8	66.4							
70	43.0	45.0	49.1	55.2	59.3	64.5	67.5	66.3	63.5	57.4	52.3	46.1							
75	26.6	28.1	31.5	36.6	40.1	44.6	47.2	46.1	43.7	38.4	34.1	29.0							
80	13.2	14.3	16.8	21.0	24.0	27.8	29.9	29.0	26.7	22.3	18.8	14.9							
85	3.16	3.84	5.38	8.43	10.8	13.8	15.4	14.7	12.7	9.24	6.72	4.21							
90	0.25	0.23	0.22	0.19	0.44	0.29	2.35	3.23	2.17	0.19	0.17	0.19							
95	0.37	0.35	0.33	0.30	0.27	0.24	0.19	0.19	0.21	0.24	0.27	0.29							
100	0.51	0.49	0.47	0.43	0.40	0.36	0.29	0.30	0.32	0.37	0.40	0.43							
105	0.66	0.65	0.63	0.58	0.55	0.50	0.42	0.43	0.46	0.51	0.54	0.58							
110	0.84	0.82	0.80	0.74	0.71	0.66	0.58	0.59	0.62	0.68	0.70	0.74							
115	1.02	1.01	0.98	0.93	0.88	0.84	0.74	0.75	0.79	0.85	0.88	0.92							
120	1.21	1.20	1.17	1.12	1.07	1.02	0.93	0.93	0.97	1.04	1.06	1.11							
125	1.40	1.38	1.35	1.31	1.26	1.21	1.12	1.12	1.15	1.23	1.26	1.29							
130	1.57	1.54	1.53	1.49	1.44	1.39	1.30	1.30	1.32	1.41	1.44	1.47							
135	1.73	1.71	1.69	1.66	1.61	1.56	1.47	1.47	1.50	1.58	1.59	1.62							
140	1.89	1.88	1.86	1.83	1.77	1.74	1.63	1.62	1.66	1.73	1.76	1.78							
145	2.05	2.03	2.02	1.98	1.93	1.90	1.80	1.80	1.81	1.88	1.90	1.94							
150	2.19	2.18	2.15	2.12	2.08	2.05	1.96	1.95	1.96	2.02	2.04	2.08							
155	2.34	2.31	2.28	2.25	2.21	2.19	2.12	2.09	2.11	2.17	2.18	2.22							
160	2.45	2.43	2.40	2.39	2.35	2.33	2.26	2.26	2.26	2.31	2.32	2.36							
165	2.57	2.54	2.53	2.51	2.48	2.47	2.41	2.41	2.41	2.45	2.46	2.48							
170	2.65	2.63	2.65	2.63	2.61	2.61	2.55	2.55	2.54	2.57	2.60	2.60							
175	2.71	2.72	2.73	2.70	2.70	2.71	2.66	2.67	2.66	2.67	2.70	2.69							
180	2.75	2.74	2.75	2.74	2.75	2.76	2.75	2.74	2.75	2.74	2.76	2.75							

C Range: 0 - 360DEG
C Interval: 30.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:
Test Date:2021-12-23

g Range: 0 - 180DEG
g Interval: 1.0DEG
Test System:EVERFINE G0-2000B_V1 SYSTEM V2.00.426
Humidity:65.0%
Test Distance:8.000m [K=1.0000]
Remarks: