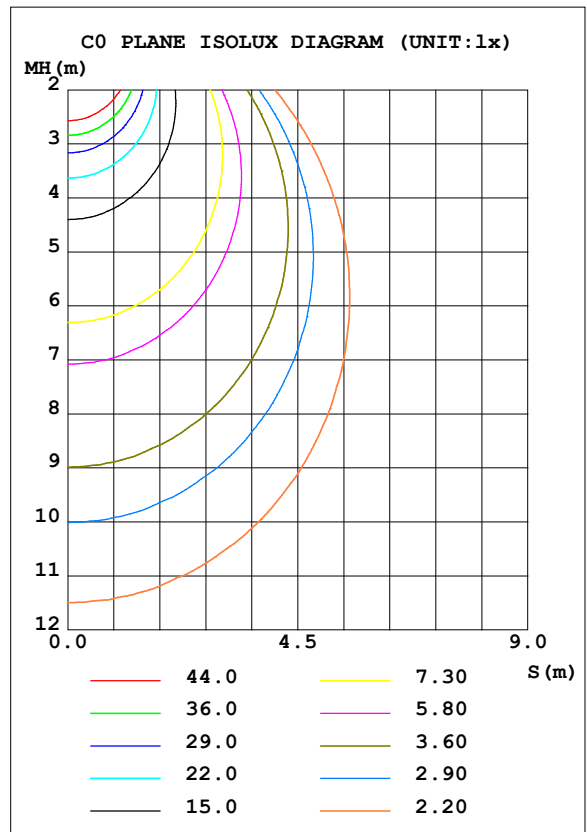
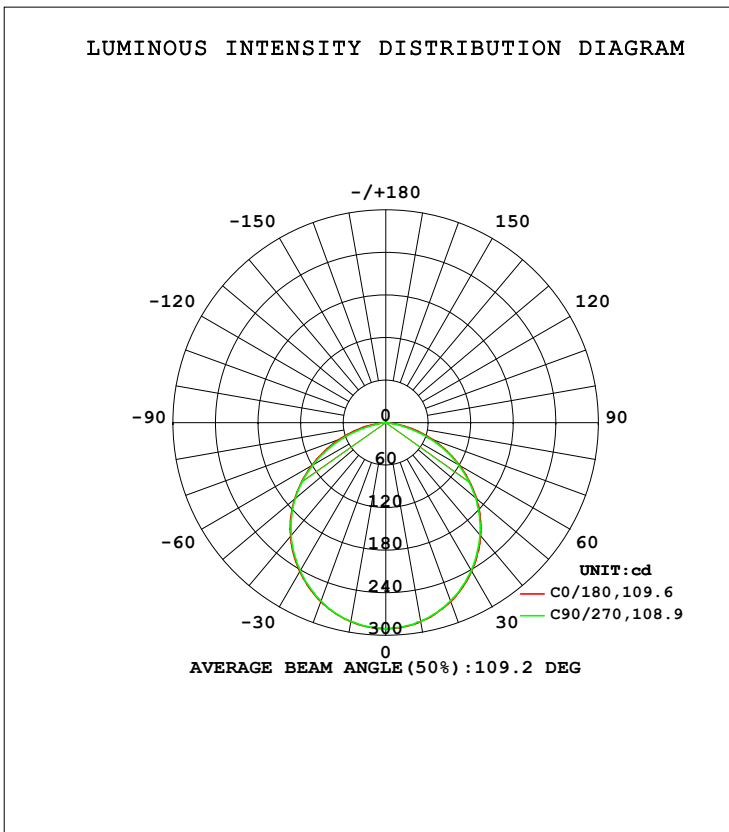


LUMINAIRE PHOTOMETRIC TEST REPORT

Test:U:119.98V I:0.1025A P:8.4954W PF:0.9374 Freq:59.98Hz Lamp Flux:780.578x1 lm		
NAME: LED-S9W-5CCTWH-R-BF	TYPE:	WEIGHT:
SPEC.:4000K 80	DIM.:	SERIAL No.:
MFR.:	SUR.:	Shielding Angle:

DATA OF LAMP		PHOTOMETRIC DATA Eff: 91.88 lm/W			
MODEL		Imax (cd)	290.8	S/MH (C0/180)	1.24
NOMINAL POWER (W)	9	LOR (%)	100.0	S/MH (C90/270)	1.24
RATED VOLTAGE (V)	120	TOTAL FLUX (lm)	780.58	<input type="checkbox"/> UP, DN (C0-180)	0.0,50.0
NOMINAL FLUX (lm)	780.578	CIE CLASS	DIRECT	<input type="checkbox"/> UP, DN (C180-360)	0.0,50.0
LAMPS INSIDE	1	<input type="checkbox"/> up (%)	0.0	CIBSE SHR NOM	1.25
TEST VOLTAGE (V)	120	<input type="checkbox"/> down (%)	100.0	CIBSE SHR MAX	1.35



C Range: 0 - 360DEG
 C Interval: 22.5DEG
 Test Speed: HIGH
 Temperature: 25.3DEG
 Operators:
 Test Date: 2021-12-30

Range: 0 - 90DEG
 Interval: 1.0DEG
 Test System: EVERFINE GO-SPEX500_V1 SYSTEM V2.00.421
 Humidity: 65.0%
 Test Distance: 3.080m [K=1.0000]
 Remarks: PORTER

ZONAL FLUX DIAGRAM

ZONAL FLUX DIAGRAM:

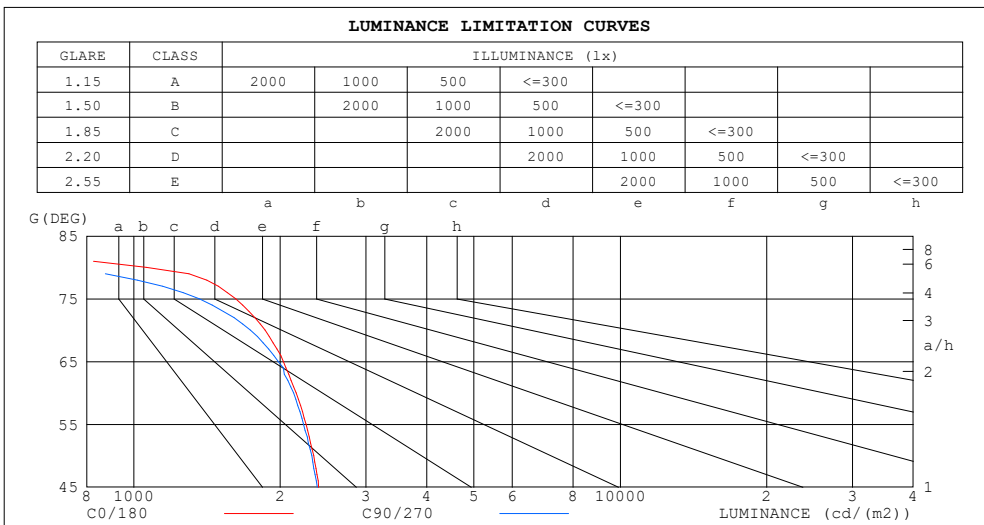
mm	C0	C45	C90	C135	C180	C225	C270	C315	mm	□ zone	□ total	%lum, lamp
10	284.6	284.8	284.8	284.3	285.0	284.8	284.5	284.9	0- 10	27.45	27.45	3.52,3.52
20	268.5	268.3	267.7	267.6	268.5	268.7	267.5	268.1	10- 20	78.33	105.8	13.6,13.6
30	242.1	241.7	241.4	241.6	242.7	242.7	241.2	242.3	20- 30	118.0	223.7	28.7,28.7
40	208.0	207.7	206.8	207.5	209.0	208.9	207.5	208.4	30- 40	141.2	365.0	46.8,46.8
50	167.3	166.2	165.6	166.2	168.1	167.6	166.2	167.2	40- 50	145.2	510.2	65.4,65.4
60	119.9	119.0	118.2	119.1	120.4	120.0	118.1	119.9	50- 60	128.2	638.4	81.8,81.8
70	70.71	68.38	65.97	68.87	70.63	68.51	64.10	67.65	60- 70	92.89	731.3	93.7,93.7
80	20.48	17.71	13.71	17.51	21.55	17.20	12.12	16.99	70- 80	44.79	776.1	99.4,99.4
90	0.1152	0.1049	0.0904	0.0991	0.2039	0.1801	0.1691	0.1816	80- 90	4.505	780.6	100,100
100									90-100			
110									100-110			
120									110-120			
130									120-130			
140									130-140			
150									140-150			
160									150-160			
170									160-170			
180									170-180			
DEG	LUMINOUS INTENSITY:cd									UNIT:lm		

C Range: 0 - 360DEG
 C Interval: 22.5DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:
 Test Date:2021-12-30

□ Range: 0 - 90DEG
 □ Interval: 1.0DEG
 Test System:EVERFINE GO-SPEX500_V1 SYSTEM V2.00.421
 Humidity:65.0%
 Test Distance:3.080m [K=1.0000]
 Remarks: PORTER

LUMINANCE LIMITATION CURVES

Test:U:119.98V I:0.1025A P:8.4954W PF:0.9374 Freq:59.98Hz Lamp Flux:780.578x1 lm		
NAME: LED-S9W-5CCTWH-R-BF	TYPE:	WEIGHT:
SPEC.:4000K 80	DIM.:	SERIAL No.:
MFR.:	SUR.:	Shielding Angle:



LUMINANCE cd/(m2)		
G (DEG)	C0/180	C90/270
85	368	106
80	1061	711
75	1619	1363
70	1860	1737
65	2030	1982
60	2157	2130
55	2259	2232
50	2343	2321
45	2399	2384

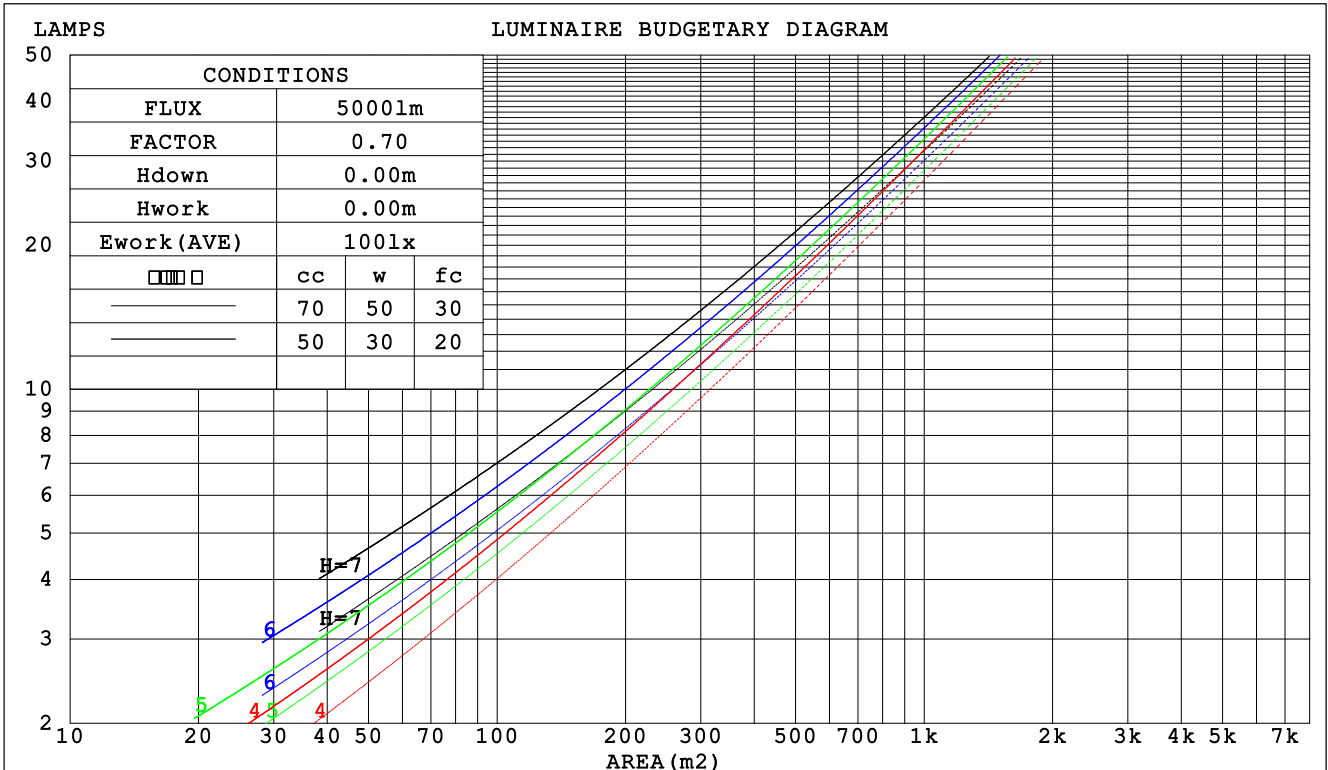
C Range: 0 - 360DEG
 C Interval: 22.5DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:
 Test Date:2021-12-30

Range: 0 - 90DEG
 Interval: 1.0DEG
 Test System:EVERFINE GO-SPEX500_V1 SYSTEM V2.00.421
 Humidity:65.0%
 Test Distance:3.080m [K=1.0000]
 Remarks: PORTER

CU AND LUMINAIRE BUDGETARY ESTIMATE DIAGRAM

Test:U:119.98V I:0.1025A P:8.4954W PF:0.9374 Freq:59.98Hz Lamp Flux:780.578x1 lm		
NAME: LED-S9W-5CCTWH-R-BF	TYPE:	WEIGHT:
SPEC.:4000K 80	DIM.:	SERIAL No.:
MFR.:	SUR.:	Shielding Angle:

□cc	80%			70%			50%			30%			10%			0
□w	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	0
□fc	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	1.02	1.02	1.02	.00
1.0	1.05	1.01	.97	1.03	.99	.96	.99	.96	.93	.95	.92	.90	.91	.89	.87	.85
2.0	.92	.85	.80	.90	.84	.79	.86	.81	.77	.83	.79	.75	.80	.77	.74	.71
3.0	.81	.73	.67	.79	.72	.66	.76	.70	.65	.74	.68	.64	.71	.66	.63	.60
4.0	.72	.63	.57	.70	.62	.56	.68	.61	.55	.66	.60	.55	.63	.58	.54	.52
5.0	.64	.55	.49	.63	.55	.48	.61	.54	.48	.59	.52	.47	.57	.51	.47	.45
6.0	.58	.49	.43	.57	.48	.42	.55	.48	.42	.53	.47	.42	.52	.46	.41	.39
7.0	.52	.44	.38	.52	.43	.37	.50	.43	.37	.49	.42	.37	.47	.41	.37	.35
8.0	.48	.39	.34	.47	.39	.33	.46	.38	.33	.45	.38	.33	.43	.37	.33	.31
9.0	.44	.36	.30	.43	.35	.30	.42	.35	.30	.41	.35	.30	.40	.34	.30	.28
10.0	.40	.33	.27	.40	.32	.27	.39	.32	.27	.38	.32	.27	.37	.31	.27	.25



C Range: 0 - 360DEG
 C Interval: 22.5DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:
 Test Date:2021-12-30

□ Range: 0 - 90DEG
 □ Interval: 1.0DEG
 Test System:EVERFINE GO-SPEX500_V1 SYSTEM V2.00.421
 Humidity:65.0%
 Test Distance:3.080m [K=1.0000]
 Remarks: PORTER

WEC AND CCEC

Test:U:119.98V I:0.1025A P:8.4954W PF:0.9374 Freq:59.98Hz Lamp Flux:780.578x1 lm		
NAME: LED-S9W-5CCTWH-R-BF	TYPE:	WEIGHT:
SPEC.:4000K 80	DIM.:	SERIAL No.:
MFR.:	SUR.:	Shielding Angle:

<input type="checkbox"/> cc	80%			70%			50%			30%			10%			0
<input type="checkbox"/> w	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	0
<input type="checkbox"/> fc	20%			20%			20%			20%			20%			0
RCR	RCR:Room Cavity Ratio						Wall Exitance Coefficients (WEC)									
0.0																
1.0	.288	.164	.052	.281	.161	.051	.268	.154	.049	.256	.148	.047	.245	.142	.046	
2.0	.278	.152	.047	.272	.150	.046	.260	.145	.045	.250	.140	.044	.240	.136	.043	
3.0	.260	.139	.042	.255	.137	.041	.245	.133	.040	.235	.129	.040	.227	.125	.039	
4.0	.242	.126	.037	.237	.124	.037	.228	.121	.036	.220	.118	.036	.212	.115	.035	
5.0	.225	.115	.033	.221	.113	.033	.213	.111	.033	.205	.108	.032	.198	.106	.032	
6.0	.210	.105	.030	.206	.104	.030	.199	.102	.030	.192	.100	.029	.186	.098	.029	
7.0	.196	.097	.027	.192	.096	.027	.186	.094	.027	.180	.092	.027	.174	.090	.027	
8.0	.183	.089	.025	.180	.089	.025	.174	.087	.025	.169	.086	.025	.164	.084	.024	
9.0	.172	.083	.023	.169	.082	.023	.164	.081	.023	.159	.080	.023	.154	.078	.023	
10.0	.162	.078	.022	.159	.077	.021	.155	.076	.021	.150	.075	.021	.146	.073	.021	

<input type="checkbox"/> cc	80%			70%			50%			30%			10%			0
<input type="checkbox"/> w	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	0
<input type="checkbox"/> fc	20%			20%			20%			20%			20%			0
RCR	RCR:Room Cavity Ratio						Ceiling Cavity Exitance Coefficients (CCEC)									
0.0	.190	.190	.190	.163	.163	.163	.111	.111	.111	.064	.064	.064	.020	.020	.020	
1.0	.179	.156	.136	.153	.134	.117	.105	.092	.081	.060	.053	.047	.019	.017	.015	
2.0	.170	.132	.100	.146	.114	.086	.100	.079	.060	.058	.046	.035	.019	.015	.011	
3.0	.163	.114	.076	.139	.099	.066	.096	.068	.046	.055	.040	.027	.018	.013	.009	
4.0	.155	.101	.059	.133	.087	.052	.092	.061	.036	.053	.036	.021	.017	.012	.007	
5.0	.148	.090	.048	.127	.078	.042	.087	.055	.029	.051	.032	.017	.016	.010	.006	
6.0	.141	.082	.040	.121	.071	.035	.084	.050	.024	.048	.029	.015	.016	.010	.005	
7.0	.134	.075	.034	.115	.065	.029	.080	.046	.021	.046	.027	.012	.015	.009	.004	
8.0	.128	.069	.029	.110	.060	.025	.076	.042	.018	.044	.025	.011	.014	.008	.004	
9.0	.122	.064	.025	.105	.056	.022	.073	.039	.016	.042	.023	.009	.014	.008	.003	
10.0	.116	.060	.023	.100	.052	.020	.070	.037	.014	.041	.022	.008	.013	.007	.003	

C Range: 0 - 360DEG
 C Interval: 22.5DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:
 Test Date:2021-12-30

Range: 0 - 90DEG
 Interval: 1.0DEG
 Test System:EVERFINE GO-SPEX500_V1 SYSTEM V2.00.421
 Humidity:65.0%
 Test Distance:3.080m [K=1.0000]
 Remarks: PORTER

UGR(Unified Glare Rating) Table

Test:U:119.98V I:0.1025A P:8.4954W PF:0.9374 Freq:59.98Hz Lamp Flux:780.578x1 lm										
NAME: LED-S9W-5CCTWH-R-BF					TYPE:			WEIGHT:		
SPEC.:4000K 80					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	16.6	18.1	16.9	18.3	18.5	16.5	18.0	16.8	18.2	18.4
3H	18.0	19.4	18.3	19.6	19.8	17.8	19.2	18.1	19.4	19.7
4H	18.5	19.8	18.8	20.0	20.3	18.2	19.5	18.5	19.8	20.0
6H	18.7	19.9	19.0	20.2	20.5	18.3	19.5	18.6	19.8	20.1
8H	18.7	19.9	19.0	20.2	20.5	18.3	19.5	18.6	19.7	20.0
12H	18.7	19.8	19.0	20.1	20.4	18.2	19.4	18.6	19.7	20.0
4H 2H	17.2	18.5	17.5	18.7	19.0	17.1	18.4	17.4	18.7	18.9
3H	18.7	19.8	19.1	20.1	20.4	18.6	19.7	18.9	20.0	20.3
4H	19.3	20.3	19.7	20.6	21.0	19.0	20.1	19.4	20.4	20.7
6H	19.6	20.5	20.0	20.9	21.3	19.2	20.1	19.6	20.5	20.8
8H	19.6	20.5	20.1	20.9	21.2	19.2	20.0	19.6	20.4	20.8
12H	19.6	20.4	20.0	20.8	21.2	19.1	19.9	19.6	20.3	20.7
8H 4H	19.4	20.3	19.9	20.7	21.0	19.2	20.0	19.6	20.4	20.8
6H	19.9	20.6	20.3	21.0	21.4	19.4	20.1	19.9	20.5	21.0
8H	19.9	20.5	20.4	20.9	21.4	19.4	20.0	19.9	20.5	20.9
12H	19.9	20.4	20.4	20.9	21.3	19.4	19.9	19.9	20.4	20.8
12H 4H	19.4	20.2	19.8	20.6	21.0	19.2	20.0	19.6	20.3	20.7
6H	19.8	20.5	20.3	20.9	21.3	19.4	20.0	19.9	20.5	20.9
8H	19.9	20.4	20.4	20.9	21.3	19.4	19.9	19.9	20.4	20.9
Variations with the observer position at spacings:										
S = 1.0H	+ 0.2 / - 0.2					+ 0.2 / - 0.3				
1.5H	+ 0.2 / - 0.4					+ 0.2 / - 0.4				
2.0H	+ 0.3 / - 0.3					+ 0.3 / - 0.3				

CIE Pub.117, 780.6 lm Total Lamp Luminous Flux Correct (8log(F/F0) = -0.9)
 Area: 0.111111 m2

C Range: 0 - 360DEG
 C Interval: 22.5DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:
 Test Date:2021-12-30

Range: 0 - 90DEG
 Interval: 1.0DEG
 Test System:EVERFINE GO-SPEX500_V1 SYSTEM V2.00.421
 Humidity:65.0%
 Test Distance:3.080m [K=1.0000]
 Remarks: PORTER

UTILIZATION FACTORS TABLE

Test:U:119.98V I:0.1025A P:8.4954W PF:0.9374 Freq:59.98Hz Lamp Flux:780.578x1 lm		
NAME: LED-S9W-5CCTWH-R-BF	TYPE:	WEIGHT:
SPEC.:4000K 80	DIM.:	SERIAL No.:
MFR.:	SUR.:	Shielding Angle:

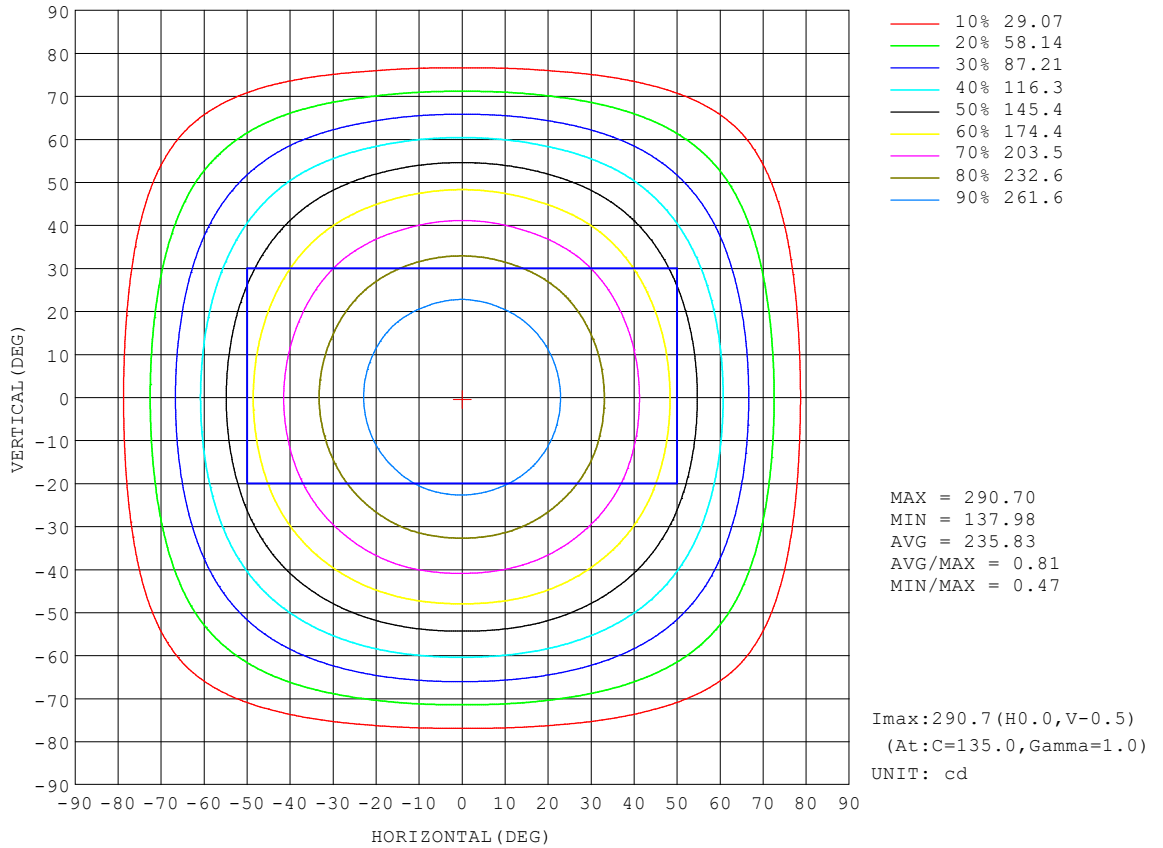
REFLECTANCE										
Ceiling	0.8	0.8	0.8	0.7	0.7	0.7	0.5	0.5	0.5	0
Walls	0.7	0.5	0.3	0.7	0.5	0.3	0.7	0.5	0.3	0
Working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0
ROOM INDEX	UTILIZATION FACTORS (PERCENT) $k(RI) \times RCR = 5$									
k = 0.60	59	47	40	58	47	40	57	46	40	34
0.80	69	57	50	68	57	50	66	56	50	43
1.00	77	67	59	76	66	59	74	67	59	52
1.25	84	74	67	83	74	67	80	72	66	59
1.50	89	80	73	88	79	73	85	77	72	64
2.00	96	88	82	94	87	81	91	85	80	72
2.50	100	93	87	98	91	86	94	89	84	76
3.00	103	97	92	101	95	91	97	92	88	80
4.00	107	102	98	105	100	96	101	97	93	85
5.00	109	105	101	107	103	100	103	99	97	88
ROOM INDEX	UF(total)									Direct
According to DIN EN 13032-2 2004			Suspended				SHRNOM = 1.25			

C Range: 0 - 360DEG
 C Interval: 22.5DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:
 Test Date:2021-12-30

Range: 0 - 90DEG
 Interval: 1.0DEG
 Test System:EVERFINE GO-SPEX500_V1 SYSTEM V2.00.421
 Humidity:65.0%
 Test Distance:3.080m [K=1.0000]
 Remarks: PORTER

ISOCANDELA DIAGRAM

Test:U:119.98V I:0.1025A P:8.4954W PF:0.9374 Freq:59.98Hz Lamp Flux:780.578x1 lm		
NAME: LED-S9W-5CCTWH-R-BF	TYPE:	WEIGHT:
SPEC.:4000K 80	DIM.:	SERIAL No.:
MFR.:	SUR.:	Shielding Angle:

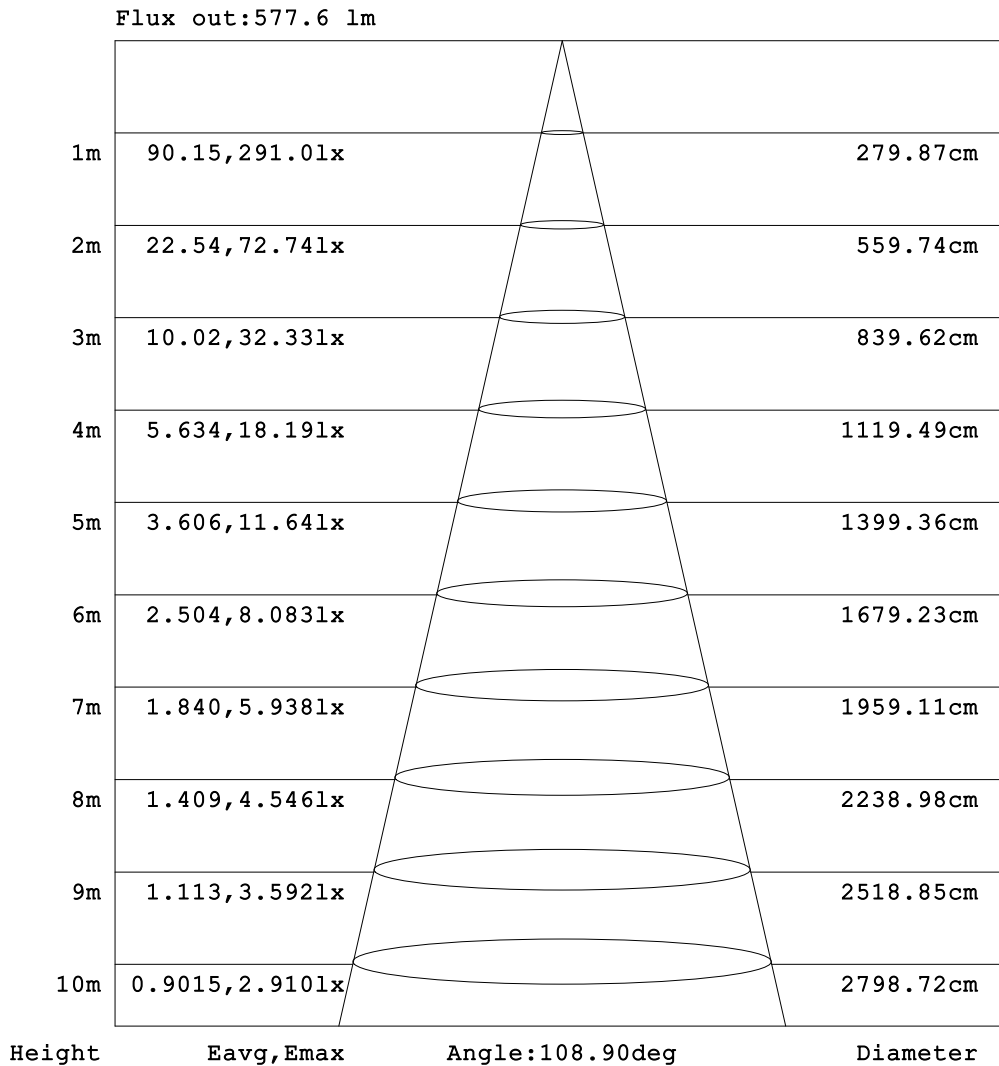


C Range: 0 - 360DEG
 C Interval: 22.5DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:
 Test Date:2021-12-30

Range: 0 - 90DEG
 Interval: 1.0DEG
 Test System:EVERFINE GO-SPEX500_V1 SYSTEM V2.00.421
 Humidity:65.0%
 Test Distance:3.080m [K=1.0000]
 Remarks: PORTER

AAI Figure

Test:U:119.98V I:0.1025A P:8.4954W PF:0.9374 Freq:59.98Hz Lamp Flux:780.578x1 lm		
NAME: LED-S9W-5CCTWH-R-BF	TYPE:	WEIGHT:
SPEC.:4000K 80	DIM.:	SERIAL No.:
MFR.:	SUR.:	Shielding Angle:



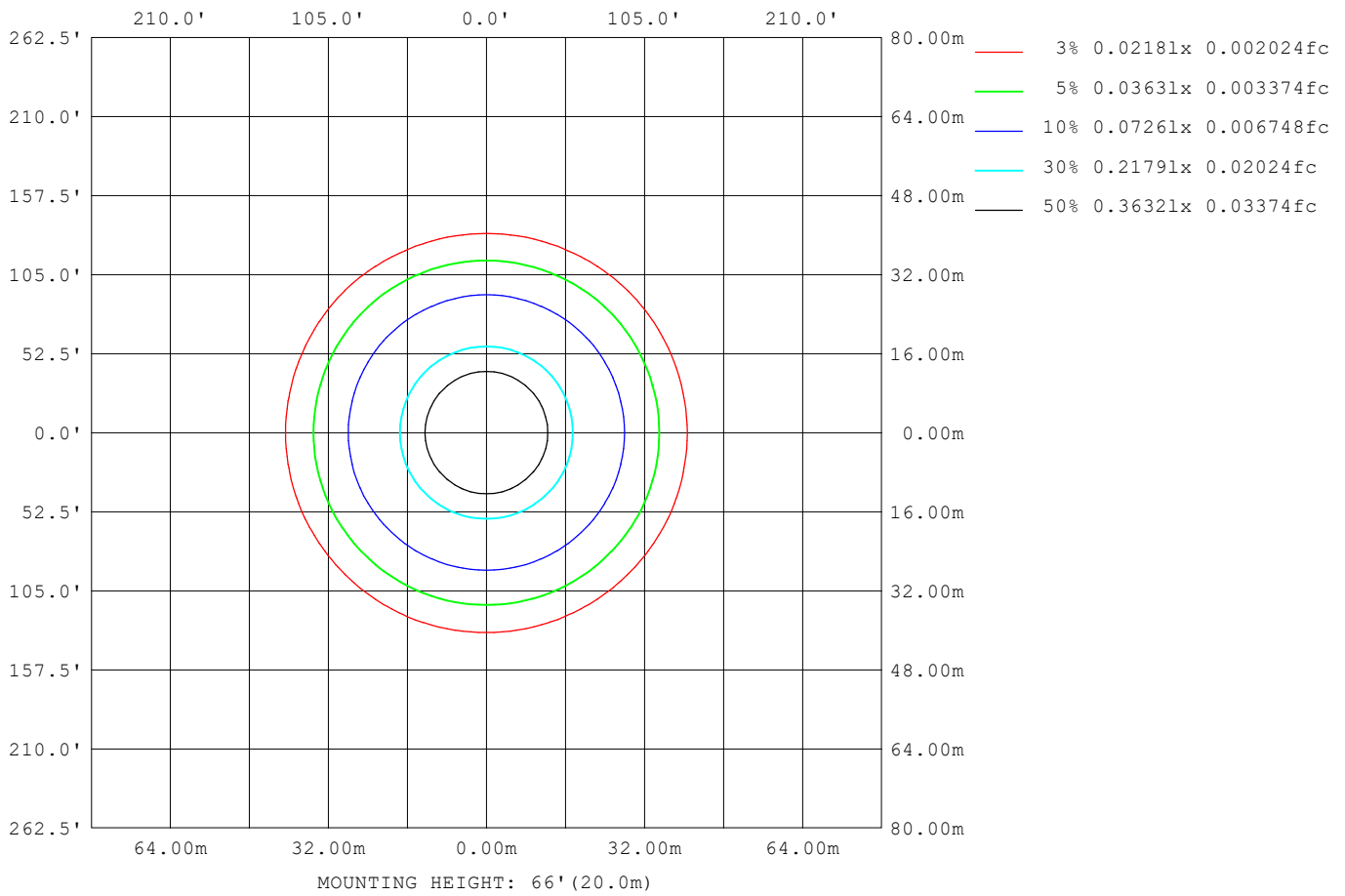
Note:The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

C Range: 0 - 360DEG
 C Interval: 22.5DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:
 Test Date:2021-12-30

Range: 0 - 90DEG
 Interval: 1.0DEG
 Test System:EVERFINE GO-SPEX500_V1 SYSTEM V2.00.421
 Humidity:65.0%
 Test Distance:3.080m [K=1.0000]
 Remarks: PORTER

ISOLUX DIAGRAM

Test:U:119.98V I:0.1025A P:8.4954W PF:0.9374 Freq:59.98Hz Lamp Flux:780.578x1 lm		
NAME: LED-S9W-5CCTWH-R-BF	TYPE:	WEIGHT:
SPEC.:4000K 80	DIM.:	SERIAL No.:
MFR.:	SUR.:	Shielding Angle:



C Range: 0 - 360DEG
 C Interval: 22.5DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:
 Test Date:2021-12-30

Range: 0 - 90DEG
 Interval: 1.0DEG
 Test System:EVERFINE GO-SPEX500_V1 SYSTEM V2.00.421
 Humidity:65.0%
 Test Distance:3.080m [K=1.0000]
 Remarks: PORTER

LED Avg.L Report

Test:U:119.98V I:0.1025A P:8.4954W PF:0.9374 Freq:59.98Hz Lamp Flux:780.578x1 lm		
NAME: LED-S9W-5CCTWH-R-BF	TYPE:	WEIGHT:
SPEC.:4000K 80	DIM.:	SERIAL No.:
MFR.:	SUR.:	Shielding Angle:

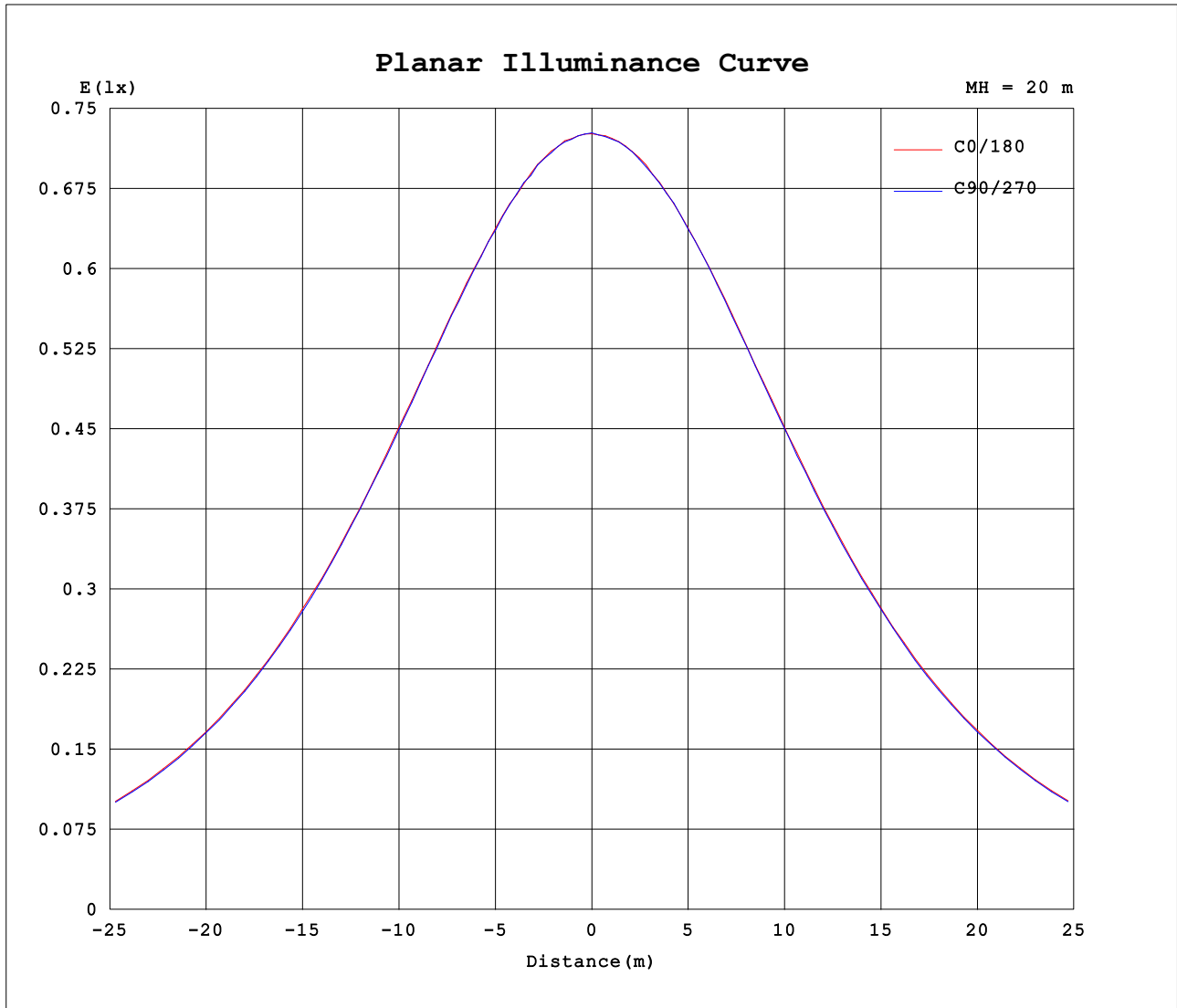
AvgL	cd/m2
L_0~180 (65) av	2031
L_0~180 (75) av	1614
L_0~180 (85) av	342
L_90~270 (65) av	1963
L_90~270 (75) av	1329
L_90~270 (85) av	96
L_45 (65) av	2011
L_45 (75) av	1471
L_45 (85) av	132

Standard: GB/T 29293-2012

C Range: 0 - 360DEG
 C Interval: 22.5DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:
 Test Date:2021-12-30

Range: 0 - 90DEG
 Interval: 1.0DEG
 Test System:EVERFINE GO-SPEX500_V1 SYSTEM V2.00.421
 Humidity:65.0%
 Test Distance:3.080m [K=1.0000]
 Remarks: PORTER

Planar Illuminance Curve



C Range: 0 - 360DEG
 C Interval: 22.5DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:
 Test Date:2021-12-30

Range: 0 - 90DEG
 Interval: 1.0DEG
 Test System:EVERFINE GO-SPEX500_V1 SYSTEM V2.00.421
 Humidity:65.0%
 Test Distance:3.080m [K=1.0000]
 Remarks: PORTER

LUMINOUS DISTRIBUTION INTENSITY DATA

Test:U:119.98V I:0.1025A P:8.4954W PF:0.9374 Freq:59.98Hz Lamp Flux:780.578x1 lm		
NAME: LED-S9W-5CCTWH-R-BF	TYPE:	WEIGHT:
SPEC.:4000K 80	DIM.:	SERIAL No.:
MFR.:	SUR.:	Shielding Angle:

Table--1

UNIT: cd

C (DEG) \ □ (DEG)	0	22.5	45	67.5	90	112.5	135	157.5	180	202.5	225	247.5	270	292.5	315	337.5			
0	291	291	291	291	291	291	291	291	291	291	291	291	291	291	291	291			
5	289	289	289	289	289	289	289	289	289	289	290	289	289	289	289	289			
10	285	285	285	285	285	285	284	285	285	284	285	285	284	284	285	285			
15	278	278	278	277	277	278	277	278	278	278	278	278	278	278	278	278			
20	268	268	268	268	268	268	268	268	269	268	269	268	267	268	268	268			
25	256	256	256	256	255	256	256	257	257	256	257	256	255	256	256	256			
30	242	242	242	241	241	242	242	242	243	242	243	241	241	242	242	242			
35	226	226	226	226	225	225	226	226	227	226	226	226	225	225	226	226			
40	208	209	208	208	207	208	207	209	209	208	209	208	207	207	208	208			
45	188	189	188	188	187	189	188	189	190	188	189	188	188	188	189	189			
50	167	167	166	166	166	166	166	168	168	167	168	166	166	166	167	167			
55	144	144	143	143	142	143	143	144	145	144	144	143	143	143	144	144			
60	120	120	119	119	118	119	119	120	120	120	120	119	118	118	120	119			
65	95.3	95.1	94.1	93.3	93.0	94.0	94.4	95.2	95.4	95.0	94.9	92.3	91.4	92.3	94.3	95.0			
70	70.7	70.5	68.4	67.0	66.0	67.2	68.9	70.4	70.6	70.2	68.5	65.2	64.1	65.4	67.6	70.2			
75	46.6	45.5	42.4	40.3	39.2	40.3	42.9	45.8	46.3	45.1	42.2	38.5	37.3	38.6	41.6	44.9			
80	20.5	21.2	17.7	15.2	13.7	15.0	17.5	21.8	21.5	20.6	17.2	13.6	12.1	13.3	17.0	21.4			
85	3.56	2.28	1.31	1.14	1.03	1.05	1.23	2.71	3.07	2.37	1.22	0.92	0.83	0.84	1.34	3.22			
90	0.12	0.12	0.10	0.09	0.09	0.09	0.10	0.11	0.20	0.20	0.18	0.17	0.17	0.17	0.18	0.20			

C Range: 0 - 360DEG
 C Interval: 22.5DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:
 Test Date:2021-12-30

□ Range: 0 - 90DEG
 □ Interval: 1.0DEG
 Test System:EVERFINE GO-SPEX500_V1 SYSTEM V2.00.421
 Humidity:65.0%
 Test Distance:3.080m [K=1.0000]
 Remarks: PORTER