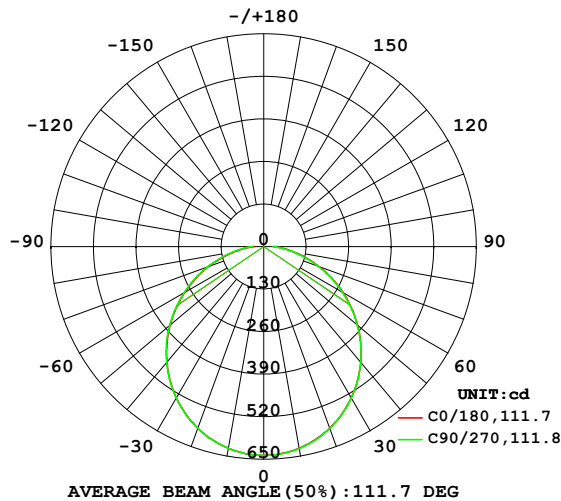


LUMINAIRE PHOTOMETRIC TEST REPORT

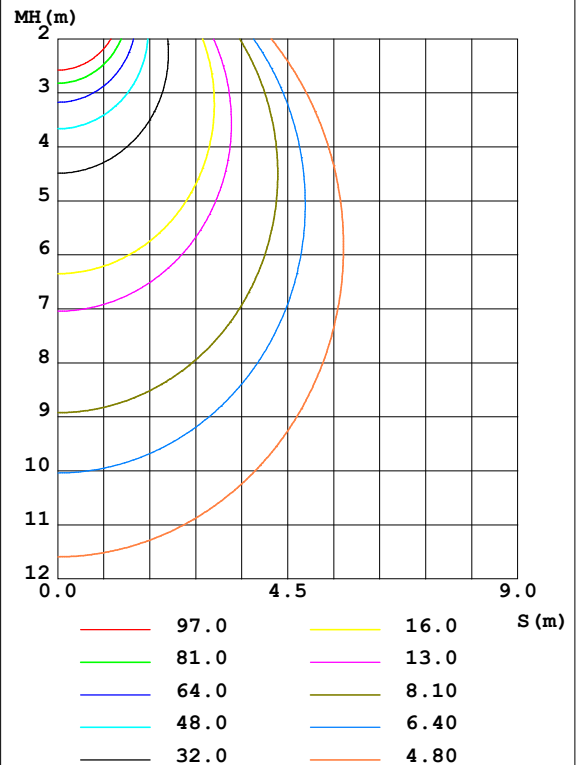
Test:U:120.09V I:0.2468A P:26.714W PF:0.9013 Freq:59.98Hz Lamp Flux:1854.01x1 lm					
NAME: S9-4090-N-WH		TYPE:		WEIGHT:	
SPEC.:4000K		DIM.:		SERIAL No.:	
MFR.: ADS		SUR.:		Shielding Angle:	

DATA OF LAMP		PHOTOMETRIC DATA				Eff: 69.40 lm/W
MODEL	S9-4090-N-WH	I <sub>max</sub> (cd)	638.2	S/MH(C0/180)	1.25	
NOMINAL POWER(W)	27	LOR(%)	100.0	S/MH(C90/270)	1.25	
RATED VOLTAGE(V)	120	TOTAL FLUX(lm)	1854.0	η UP,DN(C0-180)	0.0,49.9	
NOMINAL FLUX(lm)	1854.01	CIE CLASS	DIRECT	η UP,DN(C180-360)	0.0,50.1	
LAMPS INSIDE	1	η up(%)	0.0	CIBSE SHR NOM	1.25	
TEST VOLTAGE(V)	120	η down(%)	100.0	CIBSE SHR MAX	1.35	

LUMINOUS INTENSITY DISTRIBUTION DIAGRAM



C0 PLANE ISOLUX DIAGRAM (UNIT:lx)



C Range: 0 - 360DEG  
C Interval: 22.5DEG  
Test Speed: HIGH  
Temperature:25.3DEG  
Operators:  
Test Date:2020-09-10

γ Range: 0 - 90DEG  
γ Interval: 1.0DEG  
Test System:EVERFINE GO-SPEX500\_V1 SYSTEM V2.00.421  
Humidity:65.0%  
Test Distance:3.080m [K=1.0000]  
Remarks:

### ZONAL FLUX DIAGRAM

#### ZONAL FLUX DIAGRAM:

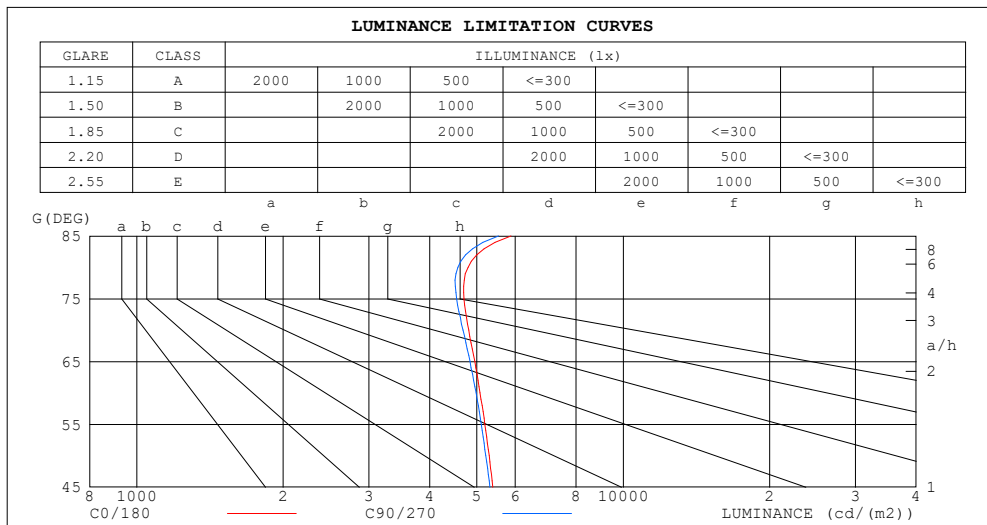
$\gamma$	C0	C45	C90	C135	C180	C225	C270	C315	$\gamma$	$\Phi$ zone	$\Phi$ total	%lum,lamp
10	625.6	626.2	626.8	626.4	625.6	625.9	625.7	626.1	0- 10	60.34	60.34	3.25,3.25
20	590.2	590.7	591.3	590.9	590.5	590.3	590.7	590.8	10- 20	172.4	232.8	12.6,12.6
30	534.3	534.6	535.1	534.3	534.4	534.3	534.4	535.0	20- 30	260.4	493.1	26.6,26.6
40	461.1	460.8	461.3	461.0	460.7	461.3	462.0	462.3	30- 40	312.7	805.8	43.5,43.5
50	374.6	373.9	373.7	373.6	374.0	374.6	375.8	375.8	40- 50	323.4	1129	60.9,60.9
60	279.1	277.8	277.5	277.6	278.1	279.6	280.7	280.5	50- 60	292.7	1422	76.7,76.7
70	181.0	179.5	178.5	178.5	180.0	182.3	183.6	183.0	60- 70	227.4	1649	89,89
80	91.59	89.84	88.41	88.32	89.89	93.38	95.06	93.82	70- 80	141.9	1791	96.6,96.6
90	30.26	27.29	28.60	26.50	28.70	31.78	33.67	32.07	80- 90	62.74	1854	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:2020-09-10

$\gamma$  Range: 0 - 90DEG  
 $\gamma$  Interval: 1.0DEG  
Test System:EVERFINE GO-SPEX500\_V1 SYSTEM V2.00.421  
Humidity:65.0%  
Test Distance:3.080m [K=1.0000]  
Remarks:

## LUMINANCE LIMITATION CURVES

Test:U:120.09V I:0.2468A P:26.714W PF:0.9013 Freq:59.98Hz Lamp Flux:1854.01x1 lm		
NAME: S9-4090-N-WH	TYPE:	WEIGHT:
SPEC.:4000K	DIM.:	SERIAL No.:
MFR.: ADS	SUR.:	Shielding Angle:



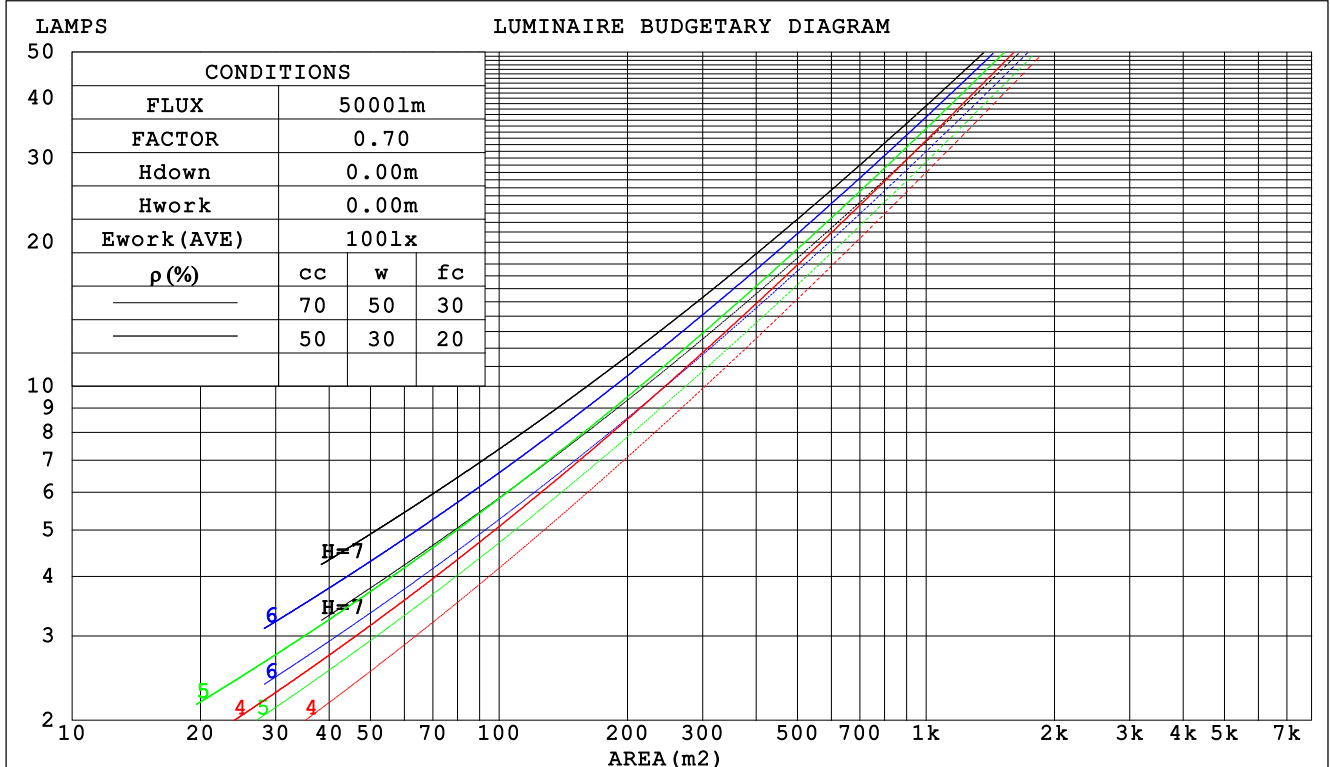
C Range: 0 - 360DEG  
 C Interval: 22.5DEG  
 Test Speed: HIGH  
 Temperature:25.3DEG  
 Operators:  
 Test Date:2020-09-10

γ Range: 0 - 90DEG  
 γ Interval: 1.0DEG  
 Test System:EVERFINE GO-SPEX500\_V1 SYSTEM V2.00.421  
 Humidity:65.0%  
 Test Distance:3.080m [K=1.0000]  
 Remarks:

CU AND LUMINAIRE BUDGETARY ESTIMATE DIAGRAM

Test:U:120.09V I:0.2468A P:26.714W PF:0.9013 Freq:59.98Hz Lamp Flux:1854.01x1 lm		
NAME: S9-4090-N-WH	TYPE:	WEIGHT:
SPEC.:4000K	DIM.:	SERIAL No.:
MFR.: ADS	SUR.:	Shielding Angle:

$\rho_{cc}$	80%			70%			50%			30%			10%			0
$\rho_w$	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	0
$\rho_{fc}$	20%			20%			20%			20%			20%			0
RCR	Coefficients of Utilization(CU)															
RCR:Room Cavity Ratio																
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	1.00
1.0	1.03	.98	.94	1.01	.96	.93	.96	.93	.90	.92	.90	.87	.89	.86	.84	.82
2.0	.89	.82	.76	.87	.81	.75	.84	.78	.74	.81	.76	.72	.77	.74	.70	.68
3.0	.78	.70	.63	.77	.69	.63	.74	.67	.61	.71	.65	.60	.68	.63	.59	.57
4.0	.69	.60	.53	.68	.60	.53	.65	.58	.52	.63	.57	.52	.61	.55	.51	.49
5.0	.62	.53	.46	.61	.52	.46	.59	.51	.45	.57	.50	.45	.55	.49	.44	.42
6.0	.56	.47	.40	.55	.46	.40	.53	.45	.39	.51	.44	.39	.50	.44	.39	.37
7.0	.50	.42	.35	.50	.41	.35	.48	.40	.35	.47	.40	.35	.45	.39	.34	.32
8.0	.46	.37	.32	.45	.37	.31	.44	.37	.31	.43	.36	.31	.42	.35	.31	.29
9.0	.42	.34	.28	.42	.34	.28	.41	.33	.28	.39	.33	.28	.38	.32	.28	.26
10.0	.39	.31	.26	.38	.31	.26	.37	.30	.25	.37	.30	.25	.36	.30	.25	.23



C Range: 0 - 360DEG  
C Interval: 22.5DEG  
Test Speed: HIGH  
Temperature:25.3DEG  
Operators:  
Test Date:2020-09-10

$\gamma$  Range: 0 - 90DEG  
 $\gamma$  Interval: 1.0DEG  
Test System:EVERFINE GO-SPEX500\_V1 SYSTEM V2.00.421  
Humidity:65.0%  
Test Distance:3.080m [K=1.0000]  
Remarks:

### WEC AND CCEC

Test:U:120.09V I:0.2468A P:26.714W PF:0.9013 Freq:59.98Hz Lamp Flux:1854.01x1 lm		
NAME: S9-4090-N-WH	TYPE:	WEIGHT:
SPEC.:4000K	DIM.:	SERIAL No.:
MFR.: ADS	SUR.:	Shielding Angle:

pcc	80%			70%			50%			30%			10%			0	
pw	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	0	
pfc	20%			20%			20%			20%			20%			0	
RCR	RCR:Room Cavity Ratio						Wall Exitance Coefficients (WEC)										
0.0																	
1.0	.328	.187	.059	.321	.183	.058	.308	.177	.056	.295	.170	.055	.284	.165	.053		
2.0	.302	.166	.051	.296	.163	.050	.284	.158	.049	.273	.153	.048	.263	.149	.047		
3.0	.277	.147	.044	.271	.145	.044	.261	.141	.043	.251	.138	.042	.242	.134	.041		
4.0	.254	.132	.039	.249	.130	.038	.240	.127	.038	.231	.124	.037	.223	.121	.037		
5.0	.234	.119	.034	.229	.118	.034	.221	.115	.034	.214	.113	.034	.206	.110	.033		
6.0	.216	.108	.031	.212	.107	.031	.205	.105	.031	.198	.103	.030	.192	.101	.030		
7.0	.201	.099	.028	.197	.098	.028	.191	.096	.028	.185	.095	.028	.179	.093	.027		
8.0	.187	.091	.026	.184	.091	.026	.178	.089	.025	.173	.088	.025	.168	.086	.025		
9.0	.175	.085	.024	.173	.084	.024	.167	.083	.023	.162	.081	.023	.158	.080	.023		
10.0	.165	.079	.022	.162	.078	.022	.157	.077	.022	.153	.076	.022	.149	.075	.021		

pcc	80%			70%			50%			30%			10%			0
pw	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	0
pfc	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	.182	.156	.133	.155	.134	.114	.106	.092	.079	.061	.053	.046	.020	.017	.015	
2.0	.174	.132	.097	.149	.114	.084	.102	.079	.058	.059	.046	.034	.019	.015	.011	
3.0	.166	.114	.073	.142	.099	.064	.098	.069	.045	.056	.040	.026	.018	.013	.009	
4.0	.158	.101	.058	.136	.087	.050	.093	.061	.035	.054	.036	.021	.017	.012	.007	
5.0	.150	.091	.047	.129	.078	.041	.089	.055	.029	.052	.032	.017	.017	.011	.006	
6.0	.143	.082	.039	.123	.071	.034	.085	.050	.024	.049	.029	.014	.016	.010	.005	
7.0	.136	.075	.033	.117	.065	.029	.081	.046	.020	.047	.027	.012	.015	.009	.004	
8.0	.130	.070	.028	.112	.060	.025	.077	.042	.018	.045	.025	.011	.015	.008	.003	
9.0	.123	.065	.025	.106	.056	.022	.074	.039	.016	.043	.023	.009	.014	.008	.003	
10.0	.118	.060	.022	.101	.052	.019	.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:2020-09-10

γ Range: 0 - 90DEG  
γ Interval: 1.0DEG  
Test System:EVERFINE GO-SPEX500\_V1 SYSTEM V2.00.421  
Humidity:65.0%  
Test Distance:3.080m [K=1.0000]  
Remarks:

### UGR(Unified Glare Rating) Table

Test:U:120.09V I:0.2468A P:26.714W PF:0.9013 Freq:59.98Hz Lamp Flux:1854.01x1 lm										
NAME: S9-4090-N-WH					TYPE:			WEIGHT:		
SPEC.:4000K					DIM.:			SERIAL No.:		
MFR.: ADS					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	16.4	17.9	16.7	18.2	18.4	16.3	17.9	16.6	18.1	18.3
3H	18.0	19.4	18.3	19.7	19.9	17.9	19.3	18.2	19.6	19.8
4H	18.7	20.1	19.0	20.3	20.6	18.6	20.0	18.9	20.2	20.5
6H	19.3	20.6	19.6	20.9	21.1	19.2	20.4	19.5	20.7	21.0
8H	19.6	20.8	19.9	21.1	21.4	19.4	20.6	19.7	20.9	21.2
12H	19.8	21.0	20.2	21.3	21.6	19.6	20.8	20.0	21.1	21.4
4H 2H	17.0	18.4	17.3	18.6	18.9	17.0	18.3	17.3	18.6	18.8
3H	18.8	20.0	19.2	20.3	20.6	18.7	19.9	19.1	20.2	20.5
4H	19.7	20.8	20.0	21.1	21.4	19.6	20.7	19.9	21.0	21.3
6H	20.4	21.4	20.8	21.7	22.1	20.3	21.3	20.7	21.6	22.0
8H	20.7	21.7	21.2	22.0	22.4	20.6	21.5	21.0	21.9	22.3
12H	21.1	21.9	21.5	22.3	22.7	20.9	21.7	21.3	22.1	22.5
8H 4H	20.0	20.9	20.4	21.3	21.7	19.9	20.8	20.3	21.2	21.6
6H	20.9	21.7	21.4	22.1	22.5	20.8	21.6	21.2	22.0	22.4
8H	21.4	22.1	21.8	22.5	22.9	21.2	21.9	21.7	22.3	22.8
12H	21.8	22.4	22.3	22.9	23.4	21.7	22.3	22.2	22.7	23.2
12H 4H	20.0	20.9	20.4	21.2	21.6	19.9	20.8	20.4	21.2	21.6
6H	21.0	21.7	21.5	22.1	22.6	20.9	21.6	21.4	22.0	22.5
8H	21.5	22.1	22.0	22.6	23.1	21.4	22.0	21.9	22.4	22.9
Variations with the observer position at spacings:										
S = 1.0H	+ 0.1 / - 0.2					+ 0.1 / - 0.2				
1.5H	+ 0.2 / - 0.3					+ 0.2 / - 0.3				
2.0H	+ 0.1 / - 0.3					+ 0.1 / - 0.3				

CIE Pub.117, 1854 lm Total Lamp Luminous Flux Correct (8log(F/F0) = 2.1)  
Area: 0.111111 m2

C Range: 0 - 360DEG  
C Interval: 22.5DEG  
Test Speed: HIGH  
Temperature:25.3DEG  
Operators:  
Test Date:2020-09-10

γ Range: 0 - 90DEG  
γ Interval: 1.0DEG  
Test System:EVERFINE GO-SPEX500\_V1 SYSTEM V2.00.421  
Humidity:65.0%  
Test Distance:3.080m [K=1.0000]  
Remarks:

### UTILIZATION FACTORS TABLE

Test:U:120.09V I:0.2468A P:26.714W PF:0.9013 Freq:59.98Hz Lamp Flux:1854.01x1 lm		
NAME: S9-4090-N-WH	TYPE:	WEIGHT:
SPEC.:4000K	DIM.:	SERIAL No.:
MFR.: ADS	SUR.:	Shielding Angle:

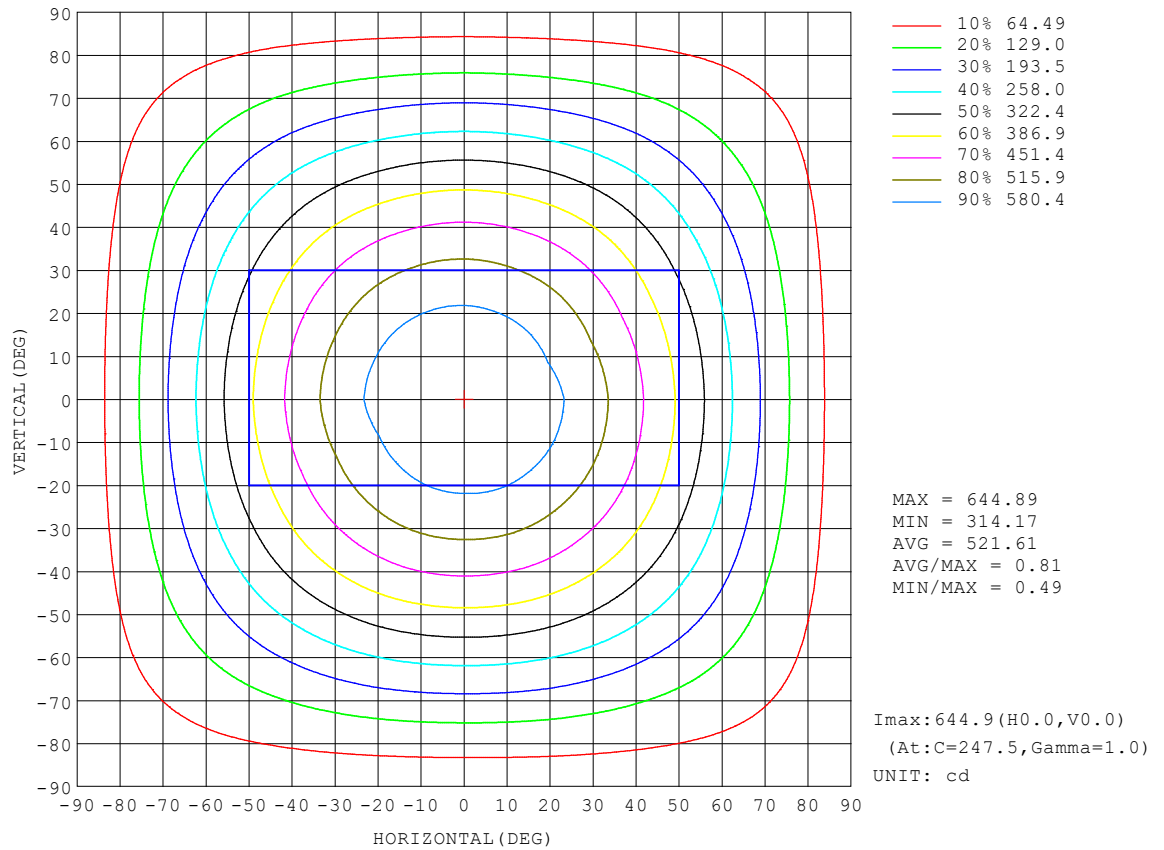
REFLECTANCE										
Ceiling	0.8	0.8	0.8	0.7	0.7	0.7	0.5	0.5	0.5	0
Walls	0.7	0.5	0.3	0.7	0.5	0.3	0.7	0.5	0.3	0
Working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0
ROOM INDEX	UTILIZATION FACTORS (PERCENT) $k(RI) \times RCR = 5$									
$k = 0.60$	57	45	38	56	45	38	55	44	38	31
0.80	67	55	48	66	55	47	64	54	47	40
1.00	75	64	56	74	63	56	72	65	56	48
1.25	82	71	64	81	71	64	78	69	63	55
1.50	87	77	70	85	76	69	82	74	68	61
2.00	94	85	78	92	84	78	89	82	76	68
2.50	98	90	84	96	88	83	92	86	81	72
3.00	101	94	88	99	93	87	95	90	85	76
4.00	105	99	95	103	98	93	99	94	90	81
5.00	108	103	99	105	101	97	101	97	94	85
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:2020-09-10

$\gamma$  Range: 0 - 90DEG  
 $\gamma$  Interval: 1.0DEG  
Test System:EVERFINE GO-SPEX500\_V1 SYSTEM V2.00.421  
Humidity:65.0%  
Test Distance:3.080m [K=1.0000]  
Remarks:

### ISOCANDELA DIAGRAM

Test:U:120.09V I:0.2468A P:26.714W PF:0.9013 Freq:59.98Hz Lamp Flux:1854.01x1 lm		
NAME: S9-4090-N-WH	TYPE:	WEIGHT:
SPEC.:4000K	DIM.:	SERIAL No.:
MFR.: ADS	SUR.:	Shielding Angle:



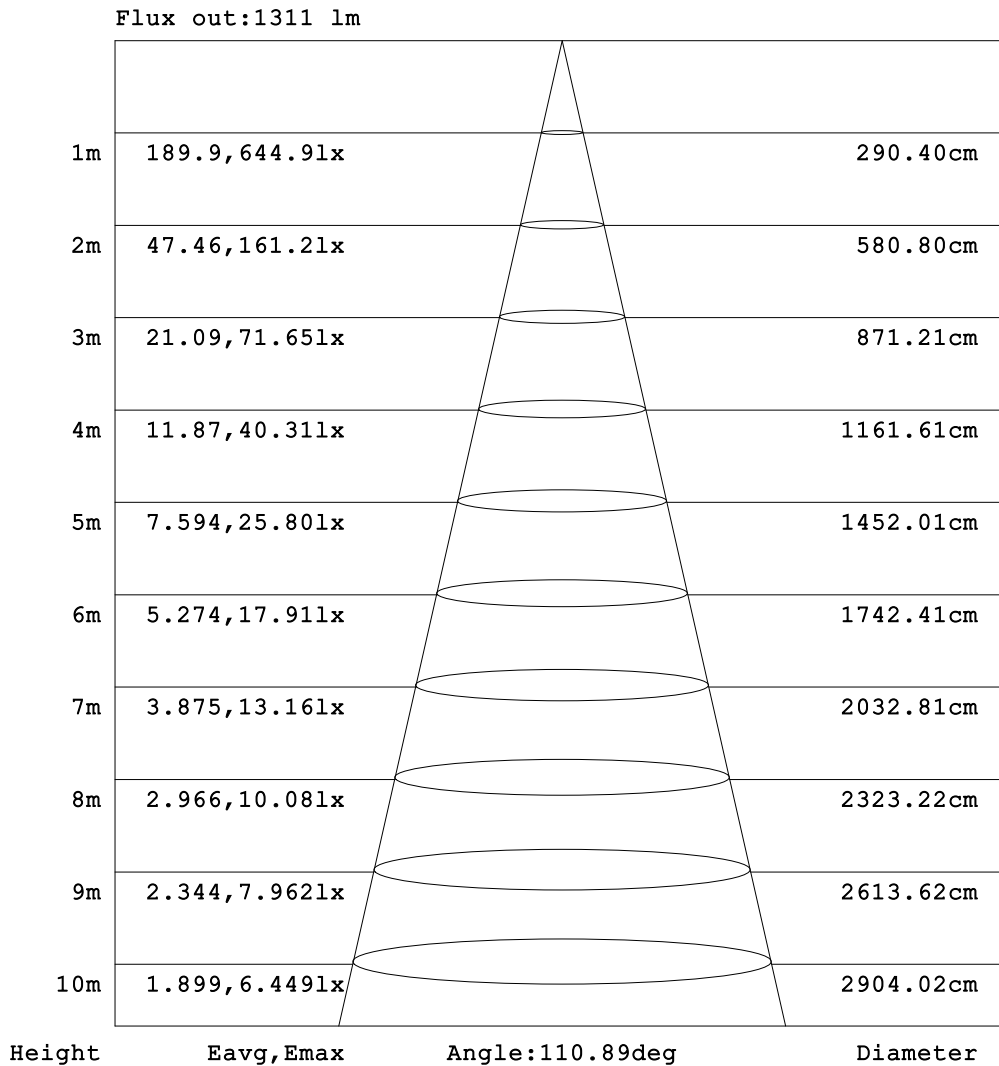
C Range: 0 - 360DEG  
C Interval: 22.5DEG  
Test Speed: HIGH  
Temperature:25.3DEG  
Operators:  
Test Date:2020-09-10

γ Range: 0 - 90DEG  
γ Interval: 1.0DEG  
Test System:EVERFINE GO-SPEX500\_V1 SYSTEM V2.00.421  
Humidity:65.0%  
Test Distance:3.080m [K=1.0000]  
Remarks:



AAI Figure

Test:U:120.09V I:0.2468A P:26.714W PF:0.9013 Freq:59.98Hz Lamp Flux:1854.01x1 lm		
NAME: S9-4090-N-WH	TYPE:	WEIGHT:
SPEC.:4000K	DIM.:	SERIAL No.:
MFR.: ADS	SUR.:	Shielding Angle:



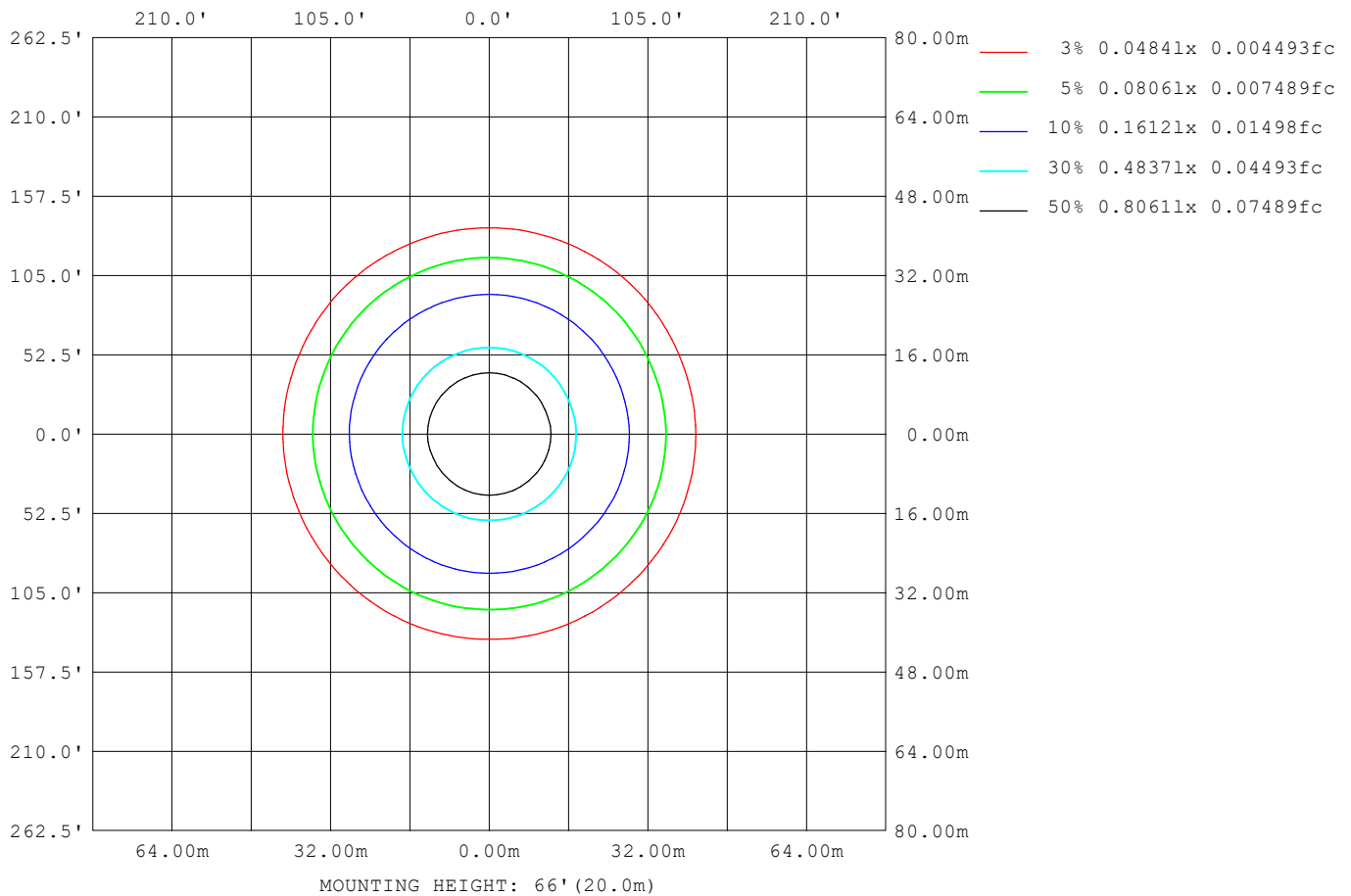
Note:The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

C Range: 0 - 360DEG  
C Interval: 22.5DEG  
Test Speed: HIGH  
Temperature:25.3DEG  
Operators:  
Test Date:2020-09-10

γ Range: 0 - 90DEG  
γ Interval: 1.0DEG  
Test System:EVERFINE GO-SPEX500\_V1 SYSTEM V2.00.421  
Humidity:65.0%  
Test Distance:3.080m [K=1.0000]  
Remarks:

### ISOLUX DIAGRAM

Test:U:120.09V I:0.2468A P:26.714W PF:0.9013 Freq:59.98Hz Lamp Flux:1854.01x1 lm		
NAME: S9-4090-N-WH	TYPE:	WEIGHT:
SPEC.:4000K	DIM.:	SERIAL No.:
MFR.: ADS	SUR.:	Shielding Angle:



C Range: 0 - 360DEG  
C Interval: 22.5DEG  
Test Speed: HIGH  
Temperature:25.3DEG  
Operators:  
Test Date:2020-09-10

γ Range: 0 - 90DEG  
γ Interval: 1.0DEG  
Test System:EVERFINE GO-SPEX500\_V1 SYSTEM V2.00.421  
Humidity:65.0%  
Test Distance:3.080m [K=1.0000]  
Remarks:

### LED Avg.L Report

Test:U:120.09V I:0.2468A P:26.714W PF:0.9013 Freq:59.98Hz Lamp Flux:1854.01x1 lm		
NAME: S9-4090-N-WH	TYPE:	WEIGHT:
SPEC.:4000K	DIM.:	SERIAL No.:
MFR.: ADS	SUR.:	Shielding Angle:

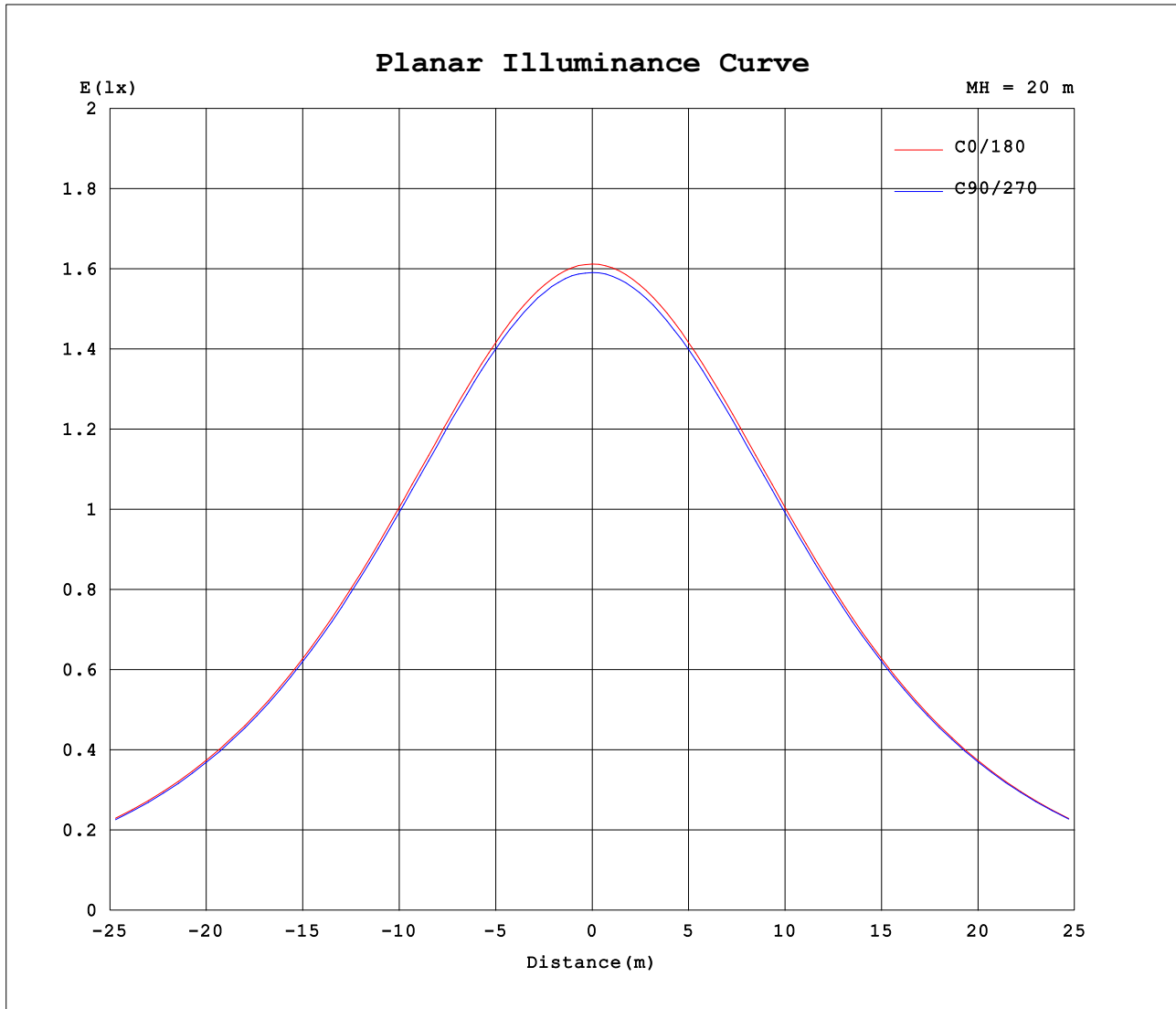
AvgL	cd/m2
L_0~180 (65) av	4889
L_0~180 (75) av	4634
L_0~180 (85) av	5728
L_90~270 (65) av	4896
L_90~270 (75) av	4662
L_90~270 (85) av	5886
L_45 (65) av	4892
L_45 (75) av	4651
L_45 (85) av	5809

Standard: GB/T 29293-2012

C Range: 0 - 360DEG  
C Interval: 22.5DEG  
Test Speed: HIGH  
Temperature:25.3DEG  
Operators:  
Test Date:2020-09-10

γ Range: 0 - 90DEG  
γ Interval: 1.0DEG  
Test System:EVERFINE GO-SPEX500\_V1 SYSTEM V2.00.421  
Humidity:65.0%  
Test Distance:3.080m [K=1.0000]  
Remarks:

### Planar Illuminance Curve



C Range: 0 - 360DEG  
 C Interval: 22.5DEG  
 Test Speed: HIGH  
 Temperature: 25.3DEG  
 Operators:  
 Test Date: 2020-09-10

$\gamma$  Range: 0 - 90DEG  
 $\gamma$  Interval: 1.0DEG  
 Test System: EVERFINE GO-SPEX500\_V1 SYSTEM V2.00.421  
 Humidity: 65.0%  
 Test Distance: 3.080m [K=1.0000]  
 Remarks:

```

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

```