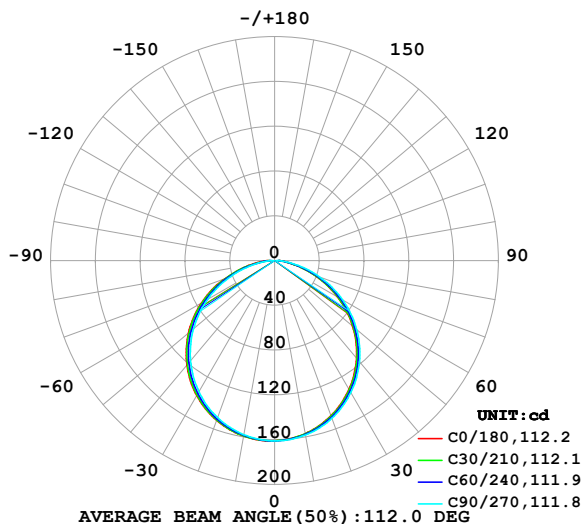


LUMINAIRE PHOTOMETRIC TEST REPORT

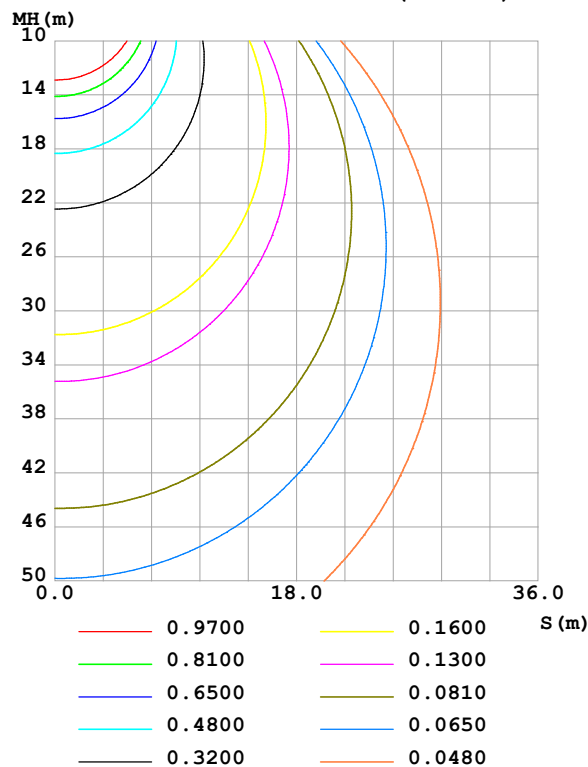
Test:U:23.997V I:0.4228A P:10.146W PF:1.0000 Freq:0Hz Lamp Flux:457.97x1 lm		
NAME: N016120BC1LZ W	TYPE: LED	WEIGHT:
SPEC.: 1000×16×16MM	DIM.: 1000×16×16MM	SERIAL No.: 10801-0045-00
MFR.: iPixel LED	SUR.: 1000×16×16MM	Shielding Angle:

DATA OF LAMP		PHOTOMETRIC DATA				Eff: 45.14 lm/W
MODEL	N016120BC1LZ W	I _{max} (cd)	161.1	S/MH(C0/180)	1.23	
NOMINAL POWER(W)	10	LOR(%)	100.0	S/MH(C90/270)	1.26	
RATED VOLTAGE(V)	24	TOTAL FLUX(lm)	457.97	η UP,DN(C0-180)	0.0,50.3	
NOMINAL FLUX(lm)	457.97	CIE CLASS	DIRECT	η UP,DN(C180-360)	0.0,49.7	
LAMPS INSIDE	1	η up (%)	0.0	CIBSE SHR NOM	1.25	
TEST VOLTAGE(V)	24	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: 30.0DEG
Test Speed: HIGH
Temperature: 25.3℃
Operators: WHL
Test Date: 2025-11-04

γ Range: 0 - 90DEG
γ Interval: 1.0DEG
Test System: EVERFINE GO-2000B_V1 SYSTEM V2.00.488
Humidity: 65.0%
Test Distance: 6.820m [K=1.0000]
Remarks:

ZONAL FLUX DIAGRAM

ZONAL FLUX DIAGRAM:

γ	C0	C45	C90	C135	C180	C225	C270	C315	γ	Φ zone	Φ total	%lum, lamp
10	159.2	158.8	158.0	157.2	157.0	157.4	158.3	159.0	0- 10	15.23	15.23	3.33,3.33
20	151.8	151.0	149.3	147.9	147.5	148.3	149.9	151.3	10- 20	43.62	58.85	12.8,12.8
30	139.3	138.0	135.4	133.5	132.9	134.2	136.3	138.4	20- 30	66.09	124.9	27.3,27.3
40	122.0	120.2	116.9	114.6	113.9	115.4	118.0	120.7	30- 40	79.68	204.6	44.7,44.7
50	100.5	98.38	94.53	91.91	90.93	92.66	95.75	99.08	40- 50	82.55	287.2	62.7,62.7
60	75.50	73.11	69.16	66.19	64.93	66.60	70.25	74.08	50- 60	74.20	361.4	78.9,78.9
70	47.01	45.61	41.92	38.99	37.49	38.86	42.83	46.84	60- 70	55.71	417.1	91.1,91.1
80	21.71	19.50	16.65	14.91	14.08	14.51	17.32	20.74	70- 80	31.05	448.1	97.8,97.8
90	5.151	3.536	1.344	3.393	4.015	3.266	1.485	3.194	80- 90	9.851	458.0	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		

Conical surface Flux(90deg): 246.23 lm

%lum = 53.8%

%lamp = 53.8%

Conical surface Flux(130deg): 392.06 lm

%lum = 85.6%

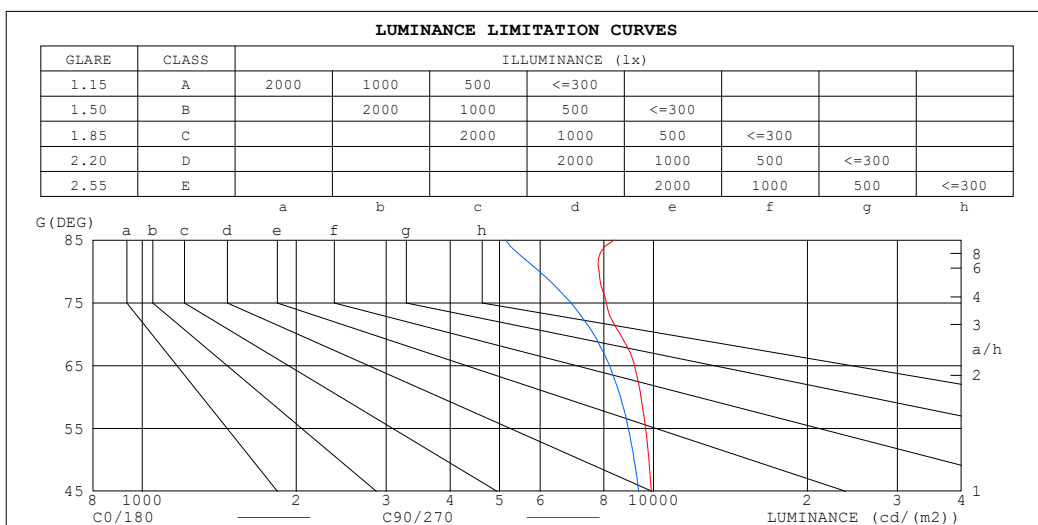
%lamp = 85.6%

C Range: 0 - 360DEG
 C Interval: 30.0DEG
 Test Speed: HIGH
 Temperature:25.3℃
 Operators:WHL
 Test Date:2025-11-04

γ Range: 0 - 90DEG
 γ Interval: 1.0DEG
 Test System:EVERFINE GO-2000B_V1 SYSTEM V2.00.488
 Humidity:65.0%
 Test Distance:6.820m [K=1.0000]
 Remarks:

LUMINANCE LIMITATION CURVES

Test:U:23.997V I:0.4228A P:10.146W PF:1.0000 Freq:0Hz Lamp Flux:457.97x1 lm		
NAME: N016120BC1LZ W	TYPE: LED	WEIGHT:
SPEC.: 1000×16×16MM	DIM.: 1000×16×16MM	SERIAL No.: 10801-0045-00
MFR.: iPixel LED	SUR.: 1000×16×16MM	Shielding Angle:



LUMINANCE cd/(m2)		
G (DEG)	C0/180	C90/270
85	8387	5147
80	7829	5973
75	8086	6893
70	8606	7636
65	9181	8201
60	9455	8618
55	9649	8926
50	9793	9163
45	9895	9354

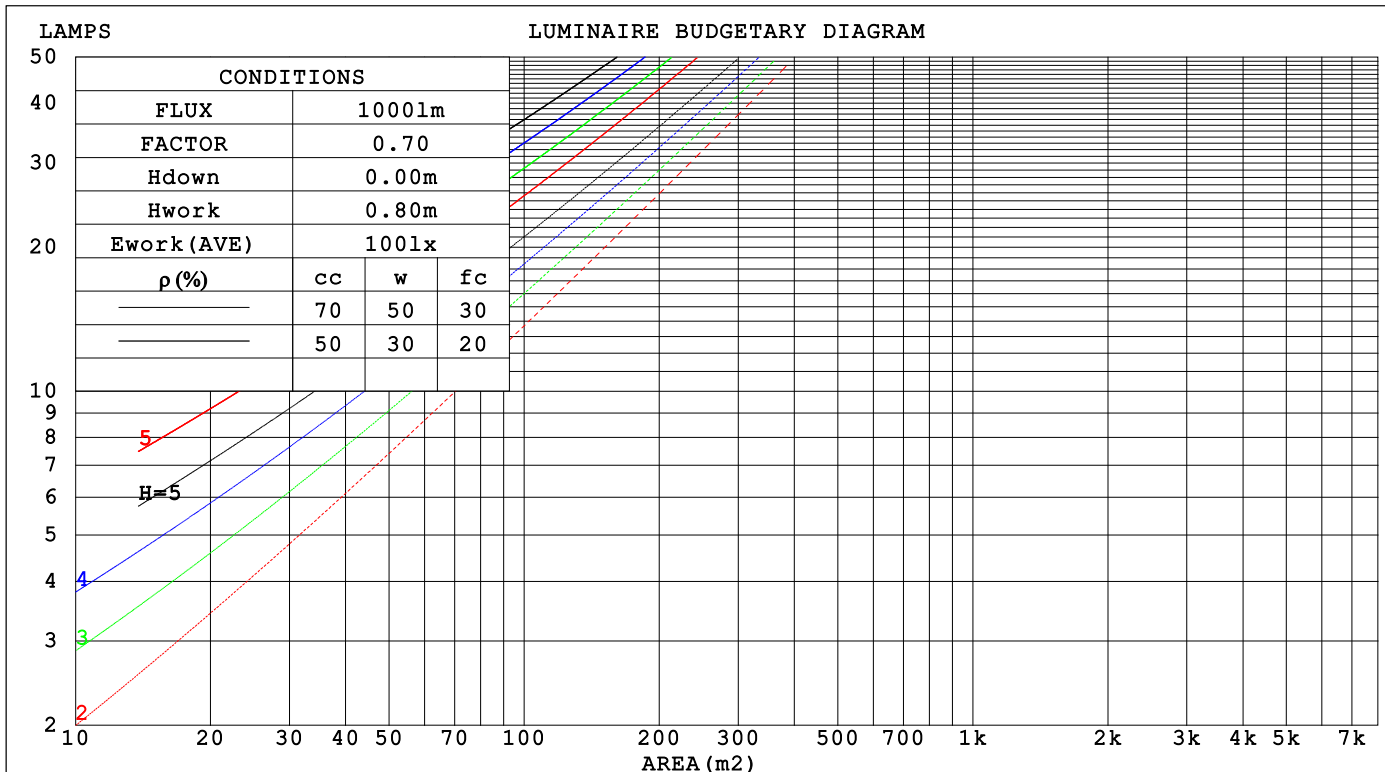
C Range: 0 - 360DEG
C Interval: 30.0DEG
Test Speed: HIGH
Temperature:25.3℃
Operators:WHL
Test Date:2025-11-04

γ Range: 0 - 90DEG
γ Interval: 1.0DEG
Test System:EVERFINE GO-2000B_V1 SYSTEM V2.00.488
Humidity:65.0%
Test Distance:6.820m [K=1.0000]
Remarks:

CU AND LUMINAIRE BUDGETARY ESTIMATE DIAGRAM

Test:U:23.997V I:0.4228A P:10.146W PF:1.0000 Freq:0Hz Lamp Flux:457.97x1 lm		
NAME: N016120BC1LZ W	TYPE: LED	WEIGHT:
SPEC.: 1000×16×16MM	DIM.: 1000×16×16MM	SERIAL No.: 10801-0045-00
MFR.: iPixel LED	SUR.: 1000×16×16MM	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			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	1.00
1.0	1.04	.99	.96	1.02	.98	.94	.97	.94	.91	.93	.91	.88	.90	.88	.86	.84
2.0	.90	.84	.78	.89	.82	.77	.85	.80	.75	.82	.77	.73	.79	.75	.72	.69
3.0	.79	.71	.65	.78	.70	.64	.75	.68	.63	.72	.66	.62	.69	.65	.61	.58
4.0	.70	.61	.55	.69	.61	.54	.66	.59	.54	.64	.58	.53	.62	.57	.52	.50
5.0	.63	.54	.47	.62	.53	.47	.60	.52	.46	.58	.51	.46	.56	.50	.45	.43
6.0	.56	.47	.41	.56	.47	.41	.54	.46	.40	.52	.45	.40	.50	.44	.40	.38
7.0	.51	.42	.36	.50	.42	.36	.49	.41	.36	.47	.41	.36	.46	.40	.35	.33
8.0	.47	.38	.32	.46	.38	.32	.45	.37	.32	.43	.37	.32	.42	.36	.32	.30
9.0	.43	.35	.29	.42	.34	.29	.41	.34	.29	.40	.33	.29	.39	.33	.28	.27
10.0	.40	.32	.26	.39	.31	.26	.38	.31	.26	.37	.31	.26	.36	.30	.26	.24



C Range: 0 - 360DEG
C Interval: 30.0DEG
Test Speed: HIGH
Temperature:25.3℃
Operators:WHL
Test Date:2025-11-04

γ Range: 0 - 90DEG
γ Interval: 1.0DEG
Test System:EVERFINE GO-2000B_V1 SYSTEM V2.00.488
Humidity:65.0%
Test Distance:6.820m [K=1.0000]
Remarks:

WEC AND CCEC

Test:U:23.997V I:0.4228A P:10.146W PF:1.0000 Freq:0Hz		
Lamp Flux:457.97x1 lm		
NAME: N016120BC1LZ W	TYPE: LED	WEIGHT:
SPEC.: 1000×16×16MM	DIM.: 1000×16×16MM	SERIAL No.: 10801-0045-00
MFR.: iPixel LED	SUR.: 1000×16×16MM	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	.311	.177	.056	.304	.173	.055	.291	.167	.053	.279	.161	.052	.267	.155	.050		
2.0	.292	.160	.049	.286	.157	.048	.274	.152	.047	.263	.148	.046	.253	.143	.045		
3.0	.270	.144	.043	.264	.142	.043	.254	.138	.042	.245	.134	.041	.236	.130	.040		
4.0	.249	.129	.038	.244	.128	.038	.235	.125	.037	.227	.122	.037	.219	.119	.036		
5.0	.230	.117	.034	.226	.116	.034	.218	.113	.033	.210	.111	.033	.203	.109	.033		
6.0	.214	.107	.031	.210	.106	.030	.202	.104	.030	.196	.102	.030	.189	.100	.030		
7.0	.199	.098	.028	.195	.097	.028	.189	.095	.028	.183	.094	.027	.177	.092	.027		
8.0	.186	.091	.026	.183	.090	.025	.177	.088	.025	.171	.087	.025	.166	.085	.025		
9.0	.174	.084	.024	.171	.083	.023	.166	.082	.023	.161	.081	.023	.157	.080	.023		
10.0	.164	.078	.022	.161	.078	.022	.156	.077	.022	.152	.075	.021	.148	.074	.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	.180	.156	.134	.154	.134	.116	.106	.092	.080	.061	.053	.046	.019	.017	.015		
2.0	.172	.132	.098	.148	.114	.085	.101	.079	.059	.058	.046	.035	.019	.015	.011		
3.0	.164	.114	.074	.141	.099	.064	.097	.068	.045	.056	.040	.027	.018	.013	.009		
4.0	.157	.101	.058	.135	.087	.051	.093	.061	.036	.054	.036	.021	.017	.012	.007		
5.0	.149	.091	.047	.128	.078	.041	.088	.055	.029	.051	.032	.017	.016	.010	.006		
6.0	.142	.082	.039	.122	.071	.034	.084	.050	.024	.049	.029	.014	.016	.010	.005		
7.0	.135	.075	.033	.116	.065	.029	.080	.046	.021	.047	.027	.012	.015	.009	.004		
8.0	.129	.070	.029	.111	.060	.025	.077	.042	.018	.045	.025	.011	.014	.008	.004		
9.0	.123	.065	.025	.106	.056	.022	.073	.039	.016	.043	.023	.009	.014	.008	.003		
10.0	.117	.060	.022	.101	.052	.020	.070	.037	.014	.041	.022	.008	.013	.007	.003		

C Range: 0 - 360DEG
C Interval: 30.0DEG
Test Speed: HIGH
Temperature:25.3℃
Operators:WHL
Test Date:2025-11-04

γ Range: 0 - 90DEG
γ Interval: 1.0DEG
Test System:EVERFINE GO-2000B_V1 SYSTEM V2.00.488
Humidity:65.0%
Test Distance:6.820m [K=1.0000]
Remarks:

UGR(Unified Glare Rating) Table

Test:U:23.997V I:0.4228A P:10.146W PF:1.0000 Freq:0Hz Lamp Flux:457.97x1 lm										
NAME: N016120BC1LZ W					TYPE: LED			WEIGHT:		
SPEC.: 1000×16×16MM					DIM.: 1000×16×16MM			SERIAL No.: 10801-0045-00		
MFR.: iPixel LED					SUR.: 1000×16×16MM			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	23.6	25.2	23.9	25.4	25.6	23.3	24.8	23.6	25.0	25.2
3H	25.2	26.6	25.5	26.8	27.1	24.7	26.1	25.0	26.4	26.6
4H	25.8	27.2	26.1	27.4	27.7	25.3	26.6	25.6	26.9	27.1
6H	26.3	27.6	26.6	27.8	28.1	25.7	26.9	26.0	27.2	27.5
8H	26.5	27.7	26.8	28.0	28.3	25.8	27.0	26.1	27.3	27.6
12H	26.6	27.8	27.0	28.1	28.4	25.8	27.0	26.2	27.3	27.6
4H 2H	24.2	25.6	24.5	25.8	26.1	24.0	25.3	24.3	25.5	25.8
3H	26.0	27.1	26.3	27.4	27.7	25.6	26.8	25.9	27.1	27.4
4H	26.7	27.8	27.1	28.1	28.4	26.3	27.3	26.6	27.6	28.0
6H	27.3	28.3	27.7	28.7	29.0	26.7	27.7	27.1	28.1	28.4
8H	27.6	28.5	28.0	28.8	29.2	26.9	27.8	27.3	28.2	28.6
12H	27.8	28.6	28.2	29.0	29.4	27.0	27.8	27.4	28.2	28.6
8H 4H	27.0	27.9	27.4	28.2	28.6	26.6	27.4	27.0	27.8	28.2
6H	27.8	28.5	28.2	28.9	29.3	27.2	27.9	27.7	28.4	28.8
8H	28.1	28.7	28.5	29.2	29.6	27.5	28.1	27.9	28.5	29.0
12H	28.4	29.0	28.9	29.4	29.9	27.6	28.2	28.1	28.7	29.1
12H 4H	27.0	27.8	27.4	28.2	28.6	26.6	27.4	27.0	27.8	28.2
6H	27.8	28.5	28.3	28.9	29.3	27.3	27.9	27.7	28.4	28.8
8H	28.2	28.7	28.6	29.2	29.7	27.6	28.1	28.1	28.6	29.1
Variations with the observer position at spacings(CIE Pub.117):										
S = 1.0H	+ 0.1 / - 0.2					+ 0.2 / - 0.2				
1.5H	+ 0.2 / - 0.3					+ 0.2 / - 0.4				
2.0H	+ 0.2 / - 0.3					+ 0.2 / - 0.4				

CIE Pub.117, 458.0 lm Total Lamp Luminous Flux Correct (8log(F/F0) = -2.7)
Area: 0.016 m2

C Range: 0 - 360DEG
C Interval: 30.0DEG
Test Speed: HIGH
Temperature:25.3℃
Operators:WHL
Test Date:2025-11-04

γ Range: 0 - 90DEG
γ Interval: 1.0DEG
Test System:EVERFINE GO-2000B_V1 SYSTEM V2.00.488
Humidity:65.0%
Test Distance:6.820m [K=1.0000]
Remarks:

UTILIZATION FACTORS TABLE

Test:U:23.997V I:0.4228A P:10.146W PF:1.0000 Freq:0Hz Lamp Flux:457.97x1 lm		
NAME: N016120BC1LZ W	TYPE: LED	WEIGHT:
SPEC.: 1000×16×16MM	DIM.: 1000×16×16MM	SERIAL No.: 10801-0045-00
MFR.: iPixel LED	SUR.: 1000×16×16MM	Shielding Angle:

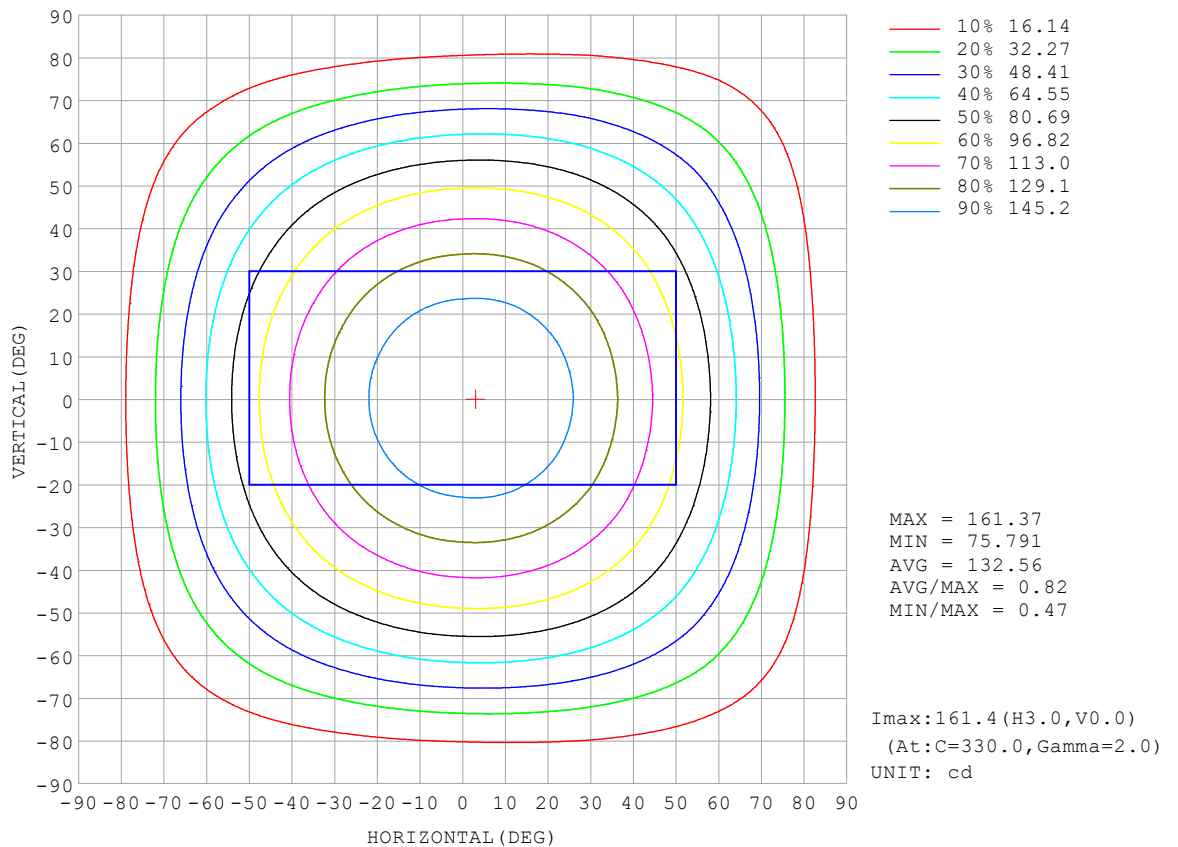
REFLECTANCE										
Ceiling	0.8	0.8	0.8	0.7	0.7	0.7	0.5	0.5	0.5	0
Walls	0.7	0.5	0.3	0.7	0.5	0.3	0.7	0.5	0.3	0
Working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0
ROOM INDEX	UTILIZATION FACTORS (PERCENT) $k(RI) \times RCR = 5$									
$k = 0.60$	58	46	39	57	46	39	56	45	39	32
0.80	68	56	49	67	56	48	65	55	48	41
1.00	76	65	58	75	64	57	73	66	57	50
1.25	83	73	65	82	72	65	79	70	64	57
1.50	88	78	71	86	77	71	83	76	70	62
2.00	95	86	80	93	85	79	90	83	78	70
2.50	99	91	85	97	90	84	93	87	82	74
3.00	102	95	90	100	94	89	96	91	87	78
4.00	106	100	96	104	99	94	100	95	92	83
5.00	109	104	100	106	102	98	102	98	95	86
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: 25.3°C
Operators: WHL
Test Date: 2025-11-04

γ Range: 0 - 90DEG
γ Interval: 1.0DEG
Test System: EVERFINE GO-2000B_V1 SYSTEM V2.00.488
Humidity: 65.0%
Test Distance: 6.820m [K=1.0000]
Remarks:

ISOCANDELA DIAGRAM

Test:U:23.997V I:0.4228A P:10.146W PF:1.0000 Freq:0Hz Lamp Flux:457.97x1 lm		
NAME: N016120BC1LZ W	TYPE: LED	WEIGHT:
SPEC.: 1000×16×16MM	DIM.: 1000×16×16MM	SERIAL No.: 10801-0045-00
MFR.: iPixel LED	SUR.: 1000×16×16MM	Shielding Angle:

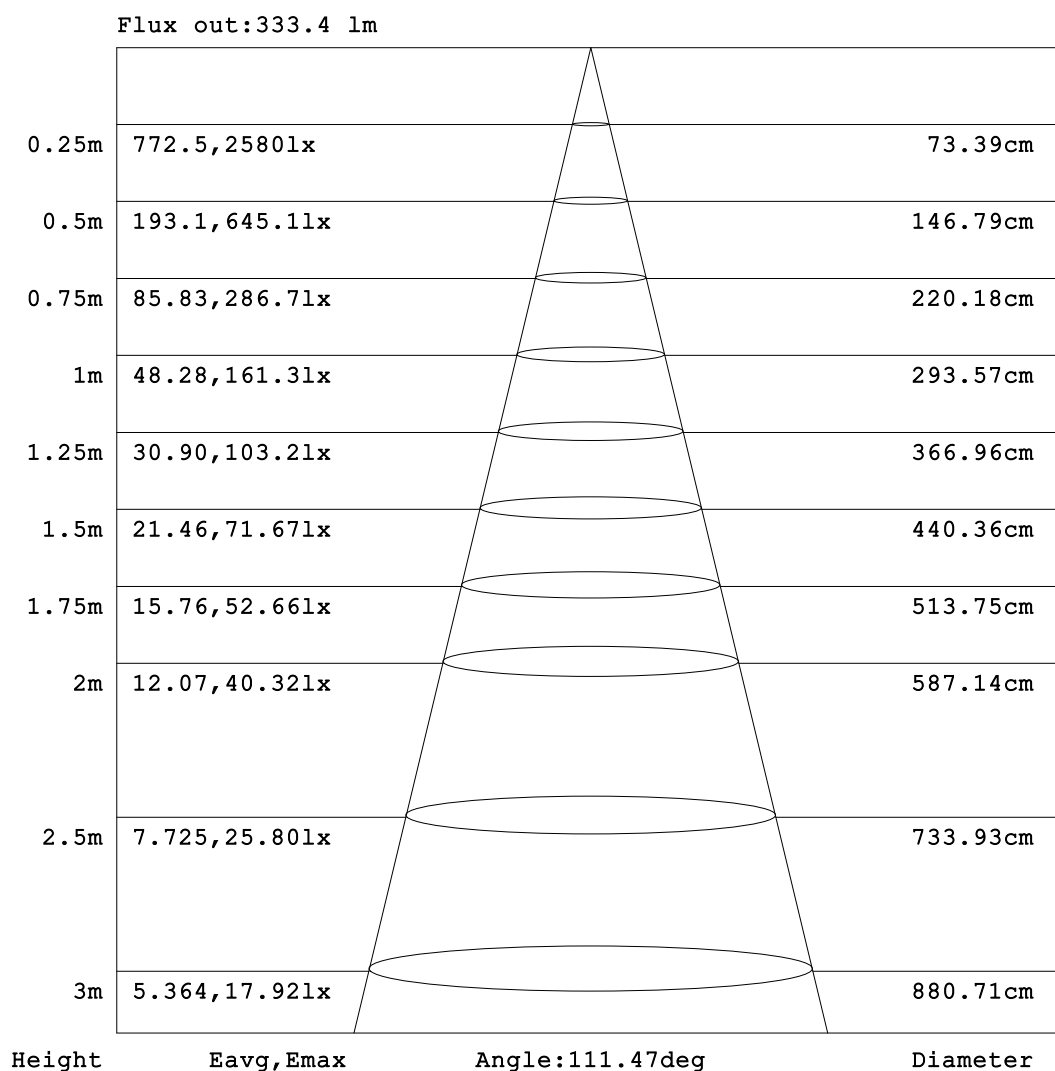


C Range: 0 - 360DEG
C Interval: 30.0DEG
Test Speed: HIGH
Temperature:25.3℃
Operators:WHL
Test Date:2025-11-04

γ Range: 0 - 90DEG
γ Interval: 1.0DEG
Test System:EVERFINE GO-2000B_V1 SYSTEM V2.00.488
Humidity:65.0%
Test Distance:6.820m [K=1.0000]
Remarks:

AAI Figure

Test:U:23.997V I:0.4228A P:10.146W PF:1.0000 Freq:0Hz Lamp Flux:457.97x1 lm		
NAME: N016120BC1LZ W	TYPE: LED	WEIGHT:
SPEC.: 1000×16×16MM	DIM.: 1000×16×16MM	SERIAL No.: 10801-0045-00
MFR.: iPixel LED	SUR.: 1000×16×16MM	Shielding Angle:



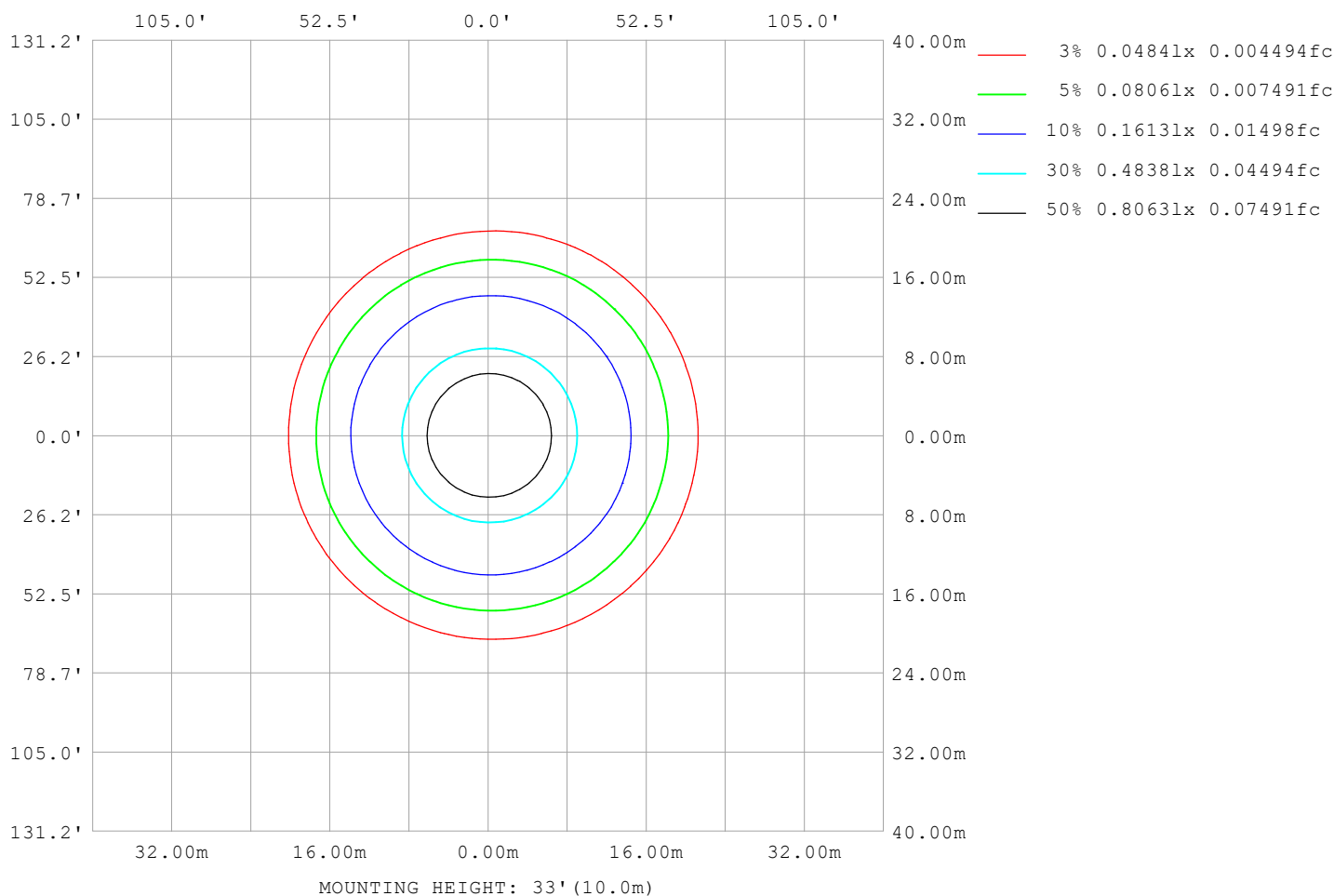
Note: The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

C Range: 0 - 360DEG
 C Interval: 30.0DEG
 Test Speed: HIGH
 Temperature: 25.3℃
 Operators: WHL
 Test Date: 2025-11-04

γ Range: 0 - 90DEG
 γ Interval: 1.0DEG
 Test System: EVERFINE GO-2000B_V1 SYSTEM V2.00.488
 Humidity: 65.0%
 Test Distance: 6.820m [K=1.0000]
 Remarks:

ISOLUX DIAGRAM

Test:U:23.997V I:0.4228A P:10.146W PF:1.0000 Freq:0Hz Lamp Flux:457.97x1 lm		
NAME: N016120BC1LZ W	TYPE: LED	WEIGHT:
SPEC.: 1000×16×16MM	DIM.: 1000×16×16MM	SERIAL No.: 10801-0045-00
MFR.: iPixel LED	SUR.: 1000×16×16MM	Shielding Angle:



C Range: 0 - 360DEG
C Interval: 30.0DEG
Test Speed: HIGH
Temperature:25.3℃
Operators:WHL
Test Date:2025-11-04

γ Range: 0 - 90DEG
γ Interval: 1.0DEG
Test System:EVERFINE GO-2000B_V1 SYSTEM V2.00.488
Humidity:65.0%
Test Distance:6.820m [K=1.0000]
Remarks:

LED Avg.L Report

Test:U:23.997V I:0.4228A P:10.146W PF:1.0000 Freq:0Hz Lamp Flux:457.97x1 lm		
NAME: N016120BC1LZ W	TYPE: LED	WEIGHT:
SPEC.: 1000×16×16MM	DIM.: 1000×16×16MM	SERIAL No.: 10801-0045-00
MFR.: iPixel LED	SUR.: 1000×16×16MM	Shielding Angle:

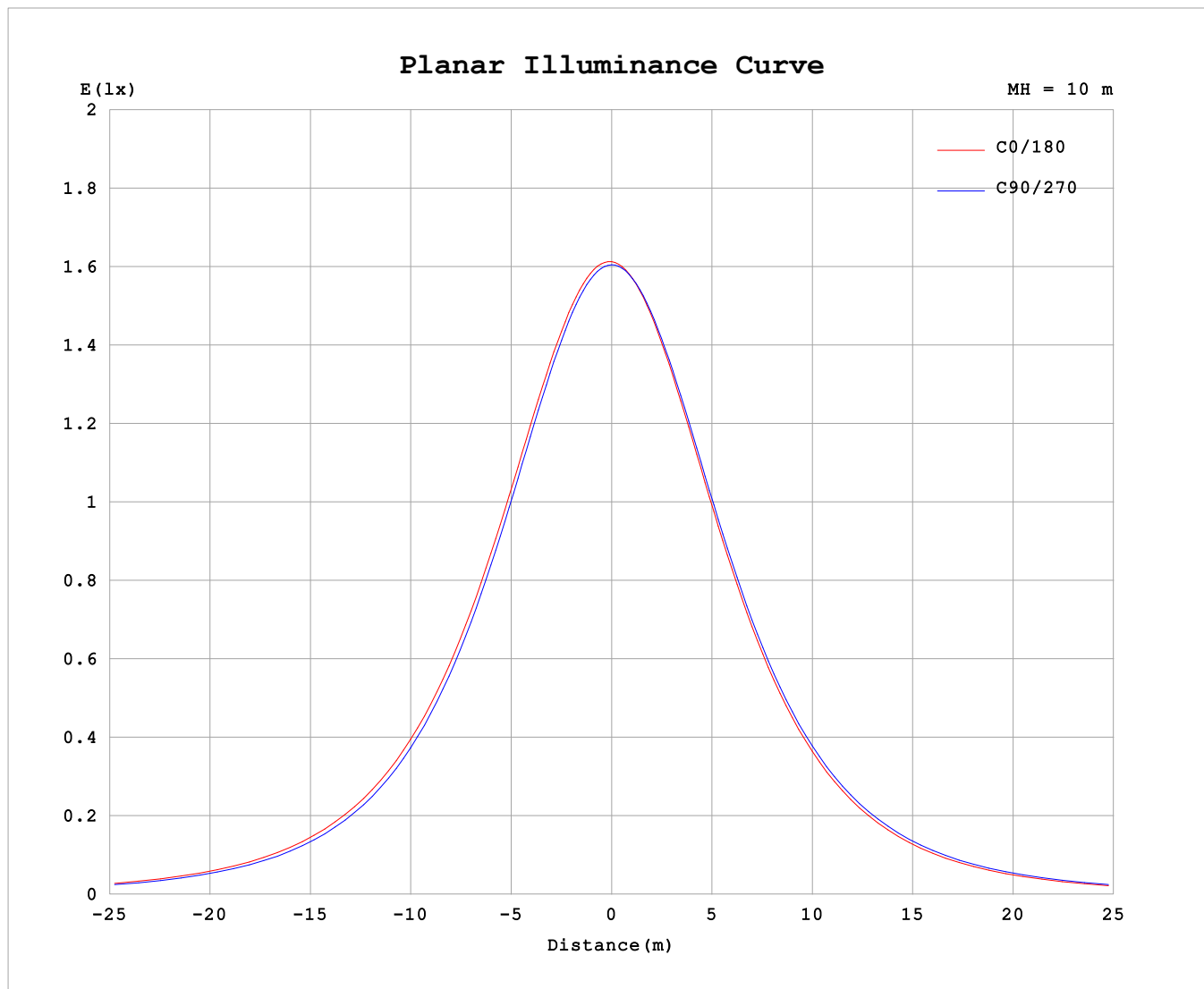
AvgL	cd/m2
L_0~180 (65) av	8367
L_0~180 (75) av	7024
L_0~180 (85) av	6709
L_90~270 (65) av	8300
L_90~270 (75) av	7010
L_90~270 (85) av	5324
L_45 (65) av	8334
L_45 (75) av	7075
L_45 (85) av	6047

Standard: GB/T 29293-2012

C Range: 0 - 360DEG
C Interval: 30.0DEG
Test Speed: HIGH
Temperature:25.3℃
Operators:WHL
Test Date:2025-11-04

γ Range: 0 - 90DEG
γ Interval: 1.0DEG
Test System:EVERFINE GO-2000B_V1 SYSTEM V2.00.488
Humidity:65.0%
Test Distance:6.820m [K=1.0000]
Remarks:

Planar Illuminance Curve



C Range: 0 - 360DEG
C Interval: 30.0DEG
Test Speed: HIGH
Temperature: 25.3°C
Operators: WHL
Test Date: 2025-11-04

γ Range: 0 - 90DEG
 γ Interval: 1.0DEG
Test System: EVERFINE GO-2000B_V1 SYSTEM V2.00.488
Humidity: 65.0%
Test Distance: 6.820m [K=1.0000]
Remarks:

Test:U:23.997V I:0.4228A P:10.146W PF:1.0000 Freq:0Hz Lamp Flux:457.97x1 lm		
NAME: N016120BC1LZ W	TYPE: LED	WEIGHT:
SPEC.: 1000×16×16MM	DIM.: 1000×16×16MM	SERIAL No.: 10801-0045-00
MFR.: iPixel LED	SUR.: 1000×16×16MM	Shielding Angle:

UNIT: cd

[illegible]

```

γ Range: 0 - 90DEG
γ Interval: 1.0DEG
Test System:EVERFINE GO-2000B_V1 SYSTEM V2.00.488
Humidity:65.0%
Test Distance:6.820m [K=1.0000]
Remarks:

```