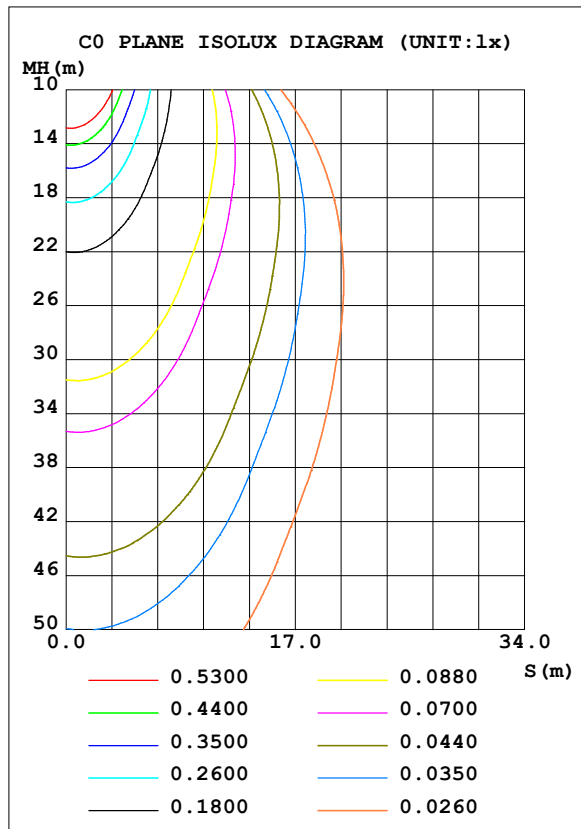
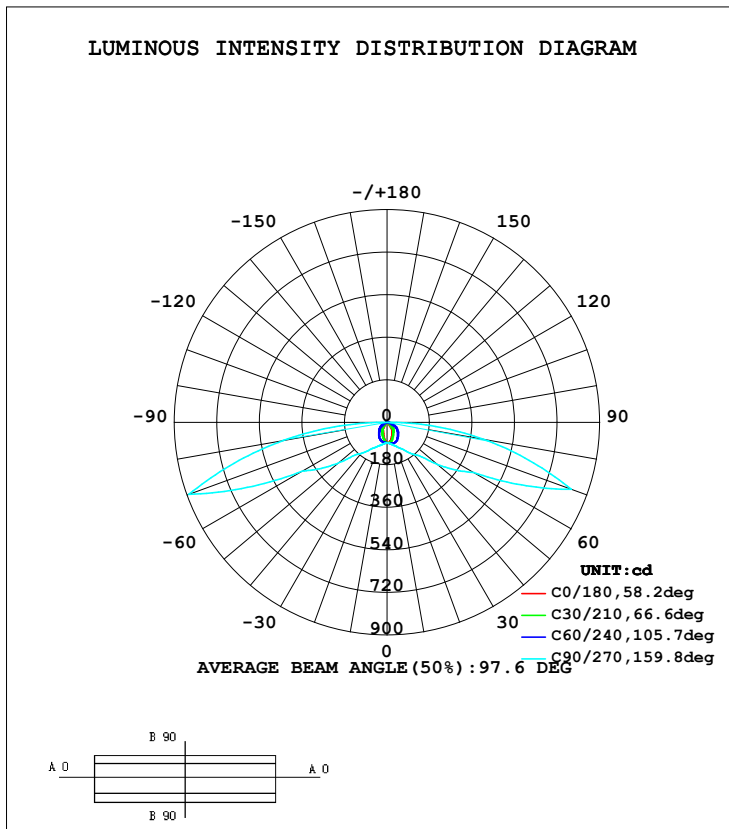


LUMINAIRE PHOTOMETRIC TEST REPORT

Test:U:0V I:0A P:0W PF:0 Lamp Flux:415.768x1 lm		
NAME: NEMD2/N/DA/NFC/LFP DC	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:2019111502
MFR.: JEWOO	SUR.:0.037	PROTECTION ANGLE:

DATA OF LAMP		PHOTOMETRIC DATA			
MODEL	NEMD2/N/DA/NFC/LFP DC	Imax(cd)	893.2	S/MH(C0/180)	0.74
NOMINAL POWER(W)		LOR(%)	100.0	S/MH(C90/270)	4.46
RATED VOLTAGE(V)	220	TOTAL FLUX(lm)	415.77	η UP,DN(C0-180)	0.0,50.8
NOMINAL FLUX(lm)	415.768	CIE CLASS	DIRECT	η UP,DN(C180-360)	0.0,49.2
LAMPS INSIDE	1	η up(%)	0.0	CIBSE SHR NOM	0.75
TEST VOLTAGE(V)	220	η down(%)	100.0	CIBSE SHR MAX	0.75



C Range: 0 - 360DEG
C Interval: 5.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:WLM
Test Date:2019-11-15

γ Range: 0 - 90DEG
 γ Interval: 0.5DEG
Test System:EVERFINE GO-2000H_V1 SYSTEM V2.0.287
Humidity:65.0%
Test Distance:13.669m [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
5	86.52	88.63	89.45	85.09	81.87	84.88	88.98	88.28	0- 5	2.084	2.084	0.50,0.50
10	80.49	87.73	93.37	81.47	72.74	80.88	93.22	87.66	5- 10	6.135	8.218	1.98,1.98
15	71.31	84.60	100.2	76.10	62.11	75.35	99.81	84.71	10- 15	9.881	18.10	4.35,4.35
20	60.74	79.36	106.9	69.31	53.14	67.84	106.4	79.97	15- 20	13.16	31.26	7.52,7.52
25	52.23	71.20	118.9	61.98	46.38	59.74	117.3	72.46	20- 25	15.98	47.23	11.4,11.4
30	45.24	62.48	130.9	55.32	40.62	52.25	128.2	64.20	25- 30	18.49	65.73	15.8,15.8
35	39.48	55.27	154.5	49.57	35.52	45.84	150.3	56.75	30- 35	20.82	86.55	20.8,20.8
40	34.78	48.50	178.1	44.03	31.11	40.32	172.5	49.50	35- 40	23.09	109.6	26.4,26.4
45	30.31	42.87	206.8	39.05	26.70	35.43	199.7	42.93	40- 45	24.99	134.6	32.4,32.4
50	25.65	38.00	276.2	34.37	22.42	31.02	267.3	37.51	45- 50	27.60	162.2	39,39
55	20.60	33.00	350.7	29.58	18.19	26.35	340.0	32.17	50- 55	30.89	193.1	46.4,46.4
60	15.03	26.19	425.1	23.23	14.30	20.19	412.7	24.62	55- 60	33.67	226.8	54.5,54.5
65	10.56	19.68	627.5	17.28	10.48	14.76	652.9	17.66	60- 65	39.04	265.8	63.9,63.9
70	7.471	13.44	830.0	11.98	7.392	10.51	893.2	11.44	65- 70	47.15	313.0	75.3,75.3
75	5.666	7.584	622.6	7.622	5.574	7.234	669.9	6.012	70- 75	45.00	358.0	86.1,86.1
80	3.694	4.676	415.2	4.909	3.711	4.844	446.7	3.701	75- 80	32.07	390.1	93.8,93.8
85	1.539	2.389	207.8	2.531	1.585	2.640	223.4	1.909	80- 85	19.23	409.3	98.4,98.4
90	0.0966	0.2575	0.4289	0.2360	0.0215	0.4724	0.2038	0.2038	85- 90	6.487	415.8	100,100
95									90- 95			
100									95-100			
105									100-105			
110									105-110			
115									110-115			
120									115-120			
125									120-125			
130									125-130			
135									130-135			
140									135-140			
145									140-145			
150									145-150			
155									150-155			
160									155-160			
165									160-165			
170									165-170			
175									170-175			
180									175-180			
DEG	LUMINOUS INTENSITY:cd									UNIT:lm		

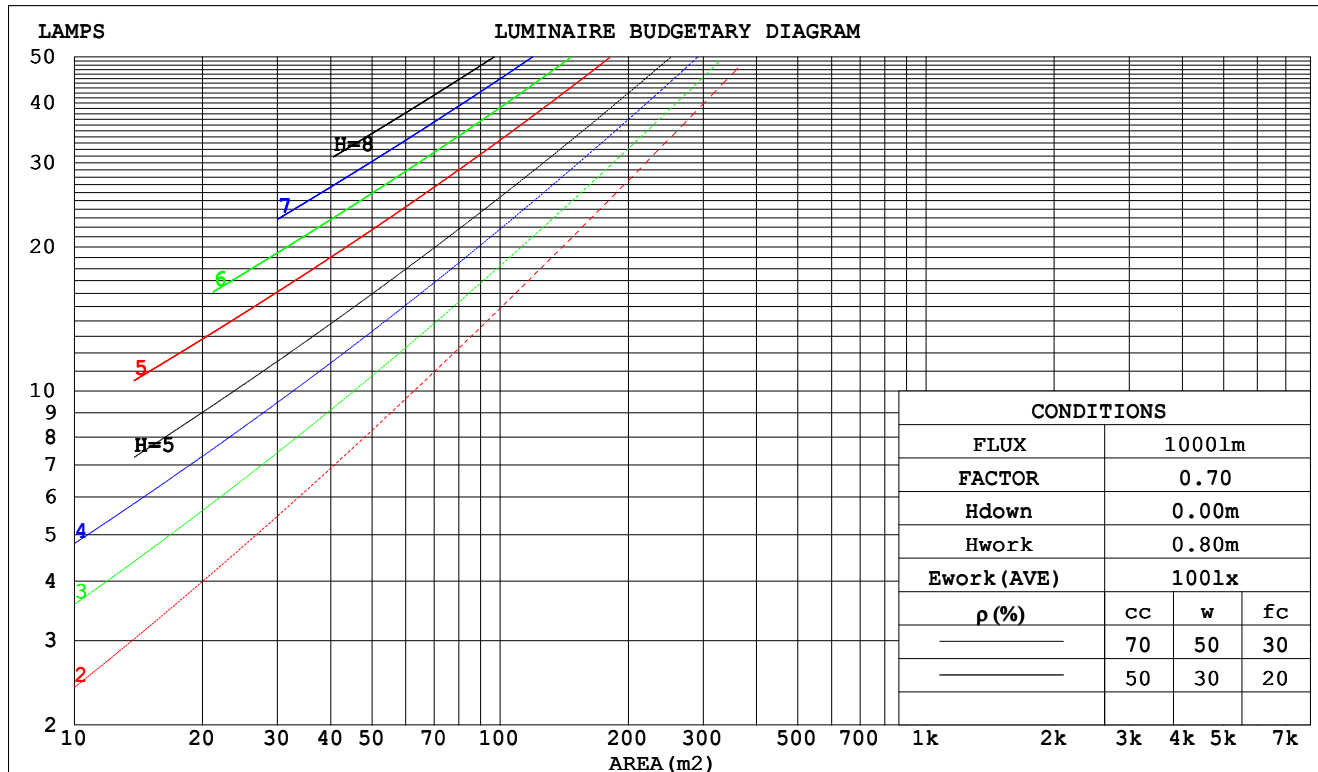
C Range: 0 - 360DEG
 C Interval: 5.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:WLM
 Test Date:2019-11-15

γ Range: 0 - 90DEG
 γ Interval: 0.5DEG
 Test System:EVERFINE GO-2000H_V1 SYSTEM V2.0.287
 Humidity:65.0%
 Test Distance:13.669m [K=1.0000]
 Remarks:

CU AND LUMINAIRE BUDGETARY ESTIMATE DIAGRAM

Test:U:0V I:0A P:0W PF:0 Lamp Flux:415.768x1 lm		
NAME: NEMD2/N/DA/NFC/LFP DC	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:2019111502
MFR.: JEWOO	SUR.:0.037	PROTECTION 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	.97	.91	.86	.95	.89	.84	.90	.86	.82	.86	.83	.79	.83	.79	.77	.74														
2.0	.81	.72	.64	.79	.70	.63	.75	.68	.62	.71	.65	.60	.68	.63	.59	.56														
3.0	.68	.58	.50	.67	.57	.49	.63	.55	.48	.60	.53	.47	.58	.51	.46	.44														
4.0	.59	.48	.40	.58	.47	.40	.55	.46	.39	.52	.45	.38	.50	.43	.38	.35														
5.0	.52	.41	.33	.51	.40	.33	.48	.39	.32	.46	.38	.32	.44	.37	.32	.29														
6.0	.46	.36	.28	.45	.35	.28	.43	.34	.28	.41	.33	.27	.39	.32	.27	.25														
7.0	.41	.31	.24	.40	.31	.24	.39	.30	.24	.37	.29	.24	.36	.29	.23	.21														
8.0	.37	.28	.21	.37	.28	.21	.35	.27	.21	.34	.26	.21	.33	.26	.21	.19														
9.0	.34	.25	.19	.34	.25	.19	.32	.24	.19	.31	.24	.19	.30	.23	.18	.16														
10.0	.32	.23	.17	.31	.23	.17	.30	.22	.17	.29	.22	.17	.28	.21	.17	.15														



C Range: 0 - 360DEG
 C Interval: 5.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:WLM
 Test Date:2019-11-15

γ Range: 0 - 90DEG
 γ Interval: 0.5DEG
 Test System:EVERFINE GO-2000H_V1 SYSTEM V2.0.287
 Humidity:65.0%
 Test Distance:13.669m [K=1.0000]
 Remarks:

WEC AND CCEC

Test:U:0V I:0A P:0W PF:0 Lamp Flux:415.768x1 lm								
NAME: NEMD2/N/DA/NFC/LFP DC				TYPE:			WEIGHT:	
SPEC.:				DIM.:			SERIAL No.:2019111502	
MFR.: JEWOO				SUR.:0.037			PROTECTION 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	.436	.248	.079	.429	.244	.078	.415	.238	.076	.402	.232	.074	.390	.226	.073		
2.0	.385	.211	.065	.379	.209	.064	.366	.204	.063	.355	.199	.062	.344	.195	.061		
3.0	.341	.181	.054	.335	.179	.054	.324	.175	.053	.313	.172	.053	.304	.168	.052		
4.0	.304	.158	.046	.298	.156	.046	.288	.153	.046	.279	.150	.045	.270	.147	.045		
5.0	.273	.139	.040	.268	.138	.040	.259	.135	.040	.251	.132	.039	.243	.130	.039		
6.0	.247	.124	.035	.243	.123	.035	.235	.121	.035	.228	.118	.035	.221	.116	.035		
7.0	.226	.112	.032	.222	.111	.032	.215	.109	.031	.209	.107	.031	.203	.105	.031		
8.0	.208	.102	.029	.205	.101	.028	.199	.099	.028	.193	.098	.028	.187	.096	.028		
9.0	.193	.093	.026	.190	.092	.026	.184	.091	.026	.179	.090	.026	.174	.088	.026		
10.0	.179	.086	.024	.177	.085	.024	.172	.084	.024	.167	.083	.024	.162	.082	.023		

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	.189	.155	.124	.162	.133	.107	.111	.092	.074	.064	.053	.043	.020	.017	.014	
2.0	.185	.131	.087	.158	.113	.075	.108	.078	.052	.063	.046	.031	.020	.015	.010	
3.0	.178	.115	.064	.153	.099	.056	.105	.069	.039	.061	.040	.023	.019	.013	.008	
4.0	.170	.102	.050	.146	.088	.044	.100	.062	.031	.058	.036	.018	.019	.012	.006	
5.0	.162	.092	.041	.139	.080	.036	.096	.056	.025	.055	.033	.015	.018	.011	.005	
6.0	.154	.084	.034	.132	.073	.030	.091	.051	.021	.053	.030	.013	.017	.010	.004	
7.0	.146	.077	.029	.125	.067	.026	.087	.047	.018	.050	.028	.011	.016	.009	.004	
8.0	.138	.072	.026	.119	.062	.023	.082	.044	.016	.048	.026	.010	.015	.008	.003	
9.0	.131	.067	.023	.113	.058	.020	.078	.041	.014	.046	.024	.008	.015	.008	.003	
10.0	.125	.062	.021	.107	.054	.018	.074	.038	.013	.043	.022	.008	.014	.007	.003	

C Range: 0 - 360DEG
 C Interval: 5.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:WLM
 Test Date:2019-11-15

γ Range: 0 - 90DEG
 γ Interval: 0.5DEG
 Test System:EVERFINE GO-2000H_V1 SYSTEM V2.0.287
 Humidity:65.0%
 Test Distance:13.669m [K=1.0000]
 Remarks:

UGR(Unified Glare Rating) Table

Test:U:0V I:0A P:0W PF:0 Lamp Flux:415.768x1 lm											
NAME: NEMD2/N/DA/NFC/LFP DC					TYPE:			WEIGHT:			
SPEC.:					DIM.:			SERIAL No.:2019111502			
MFR.: JEWOO					SUR.:0.037			PROTECTION 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	21.3	23.1	21.6	23.3	23.5	37.0	38.8	37.3	39.1	39.3	
	3H	21.9	23.6	22.2	23.8	24.1	43.8	45.5	44.1	45.8	46.0
	4H	22.2	23.8	22.5	24.1	24.4	46.2	47.8	46.5	48.1	48.4
	6H	22.5	24.0	22.8	24.3	24.6	48.0	49.5	48.3	49.8	50.1
	8H	22.6	24.1	22.9	24.4	24.7	48.7	50.2	49.1	50.5	50.8
	12H	22.6	24.0	23.0	24.4	24.7	49.3	50.7	49.7	51.1	51.4
4H	2H	22.8	24.4	23.1	24.7	25.0	36.7	38.3	37.0	38.6	38.9
	3H	23.4	24.9	23.8	25.2	25.5	43.4	44.9	43.8	45.2	45.5
	4H	23.7	25.1	24.1	25.4	25.8	45.9	47.2	46.2	47.5	47.9
	6H	24.1	25.3	24.5	25.6	26.0	47.7	48.9	48.1	49.3	49.7
	8H	24.2	25.3	24.6	25.7	26.1	48.5	49.6	48.9	50.0	50.4
	12H	24.2	25.3	24.7	25.7	26.1	49.2	50.3	49.6	50.7	51.1
8H	4H	24.6	25.8	25.0	26.2	26.6	45.7	46.8	46.1	47.2	47.6
	6H	25.0	26.0	25.4	26.4	26.8	47.6	48.5	48.0	49.0	49.4
	8H	25.1	26.0	25.6	26.5	26.9	48.4	49.2	48.8	49.7	50.1
	12H	25.3	26.0	25.8	26.5	27.0	49.1	49.9	49.6	50.3	50.8
12H	4H	25.0	26.0	25.4	26.4	26.8	45.6	46.7	46.1	47.1	47.5
	6H	25.3	26.2	25.8	26.7	27.1	47.5	48.4	48.0	48.8	49.3
	8H	25.5	26.3	26.0	26.7	27.2	48.3	49.1	48.8	49.6	50.0
Variations with the observer position at spacings:											
S = 1.0H	+ 0.5 / - 0.5					+ 0.7 / - 0.8					
1.5H	+ 0.6 / - 0.4					+ 2.0 / - 2.9					
2.0H	+ 1.2 / - 0.9					+ 2.8 / - 5.0					

CIE Pub.117 Corrected 415.8 lm Total Lamp Luminous Flux. (8log(F/F0) = -3.0)

C Range: 0 - 360DEG
 C Interval: 5.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:WLM
 Test Date:2019-11-15

γ Range: 0 - 90DEG
 γ Interval: 0.5DEG
 Test System:EVERFINE GO-2000H_V1 SYSTEM V2.0.287
 Humidity:65.0%
 Test Distance:13.669m [K=1.0000]
 Remarks:

UTILIZATION FACTORS TABLE

Test:U:0V I:0A P:0W PF:0 Lamp Flux:415.768x1 lm		
NAME: NEMD2/N/DA/NFC/LFP DC	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:2019111502
MFR.: JEWOO	SUR.:0.037	PROTECTION 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) $k(RI) \times RCR = 5$									
$k = 0.60$	49	35	27	48	35	27	46	35	27	20
0.80	57	43	35	56	43	34	54	42	34	26
1.00	65	51	42	63	50	41	61	52	41	32
1.25	72	58	49	70	57	49	67	56	48	39
1.50	77	64	55	75	63	55	72	61	54	44
2.00	85	74	65	83	72	64	79	70	63	53
2.50	91	80	72	88	79	71	84	76	69	59
3.00	95	85	78	93	84	77	88	81	75	64
4.00	100	93	86	98	91	85	93	87	82	72
5.00	104	97	92	101	95	90	96	91	87	77
ROOM INDEX	UF (total)									Direct
According to DIN EN 13032-2 2004			Suspended					SHRNOM = 1.25		

C Range: 0 - 360DEG
 C Interval: 5.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:WLM
 Test Date:2019-11-15

γ Range: 0 - 90DEG
 γ Interval: 0.5DEG
 Test System:EVERFINE GO-2000H_V1 SYSTEM V2.0.287
 Humidity:65.0%
 Test Distance:13.669m [K=1.0000]
 Remarks:

ISOCANDELA DIAGRAM

Test:U:0V I:0A P:0W PF:0 Lamp Flux:415.768x1 lm		
NAME: NEMD2/N/DA/NFC/LFP DC	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:2019111502
MFR.: JEWOO	SUR.:0.037	PROTECTION ANGLE:

Conical surface Flux(90deg):

134.63 lm

%lum = 32.4%

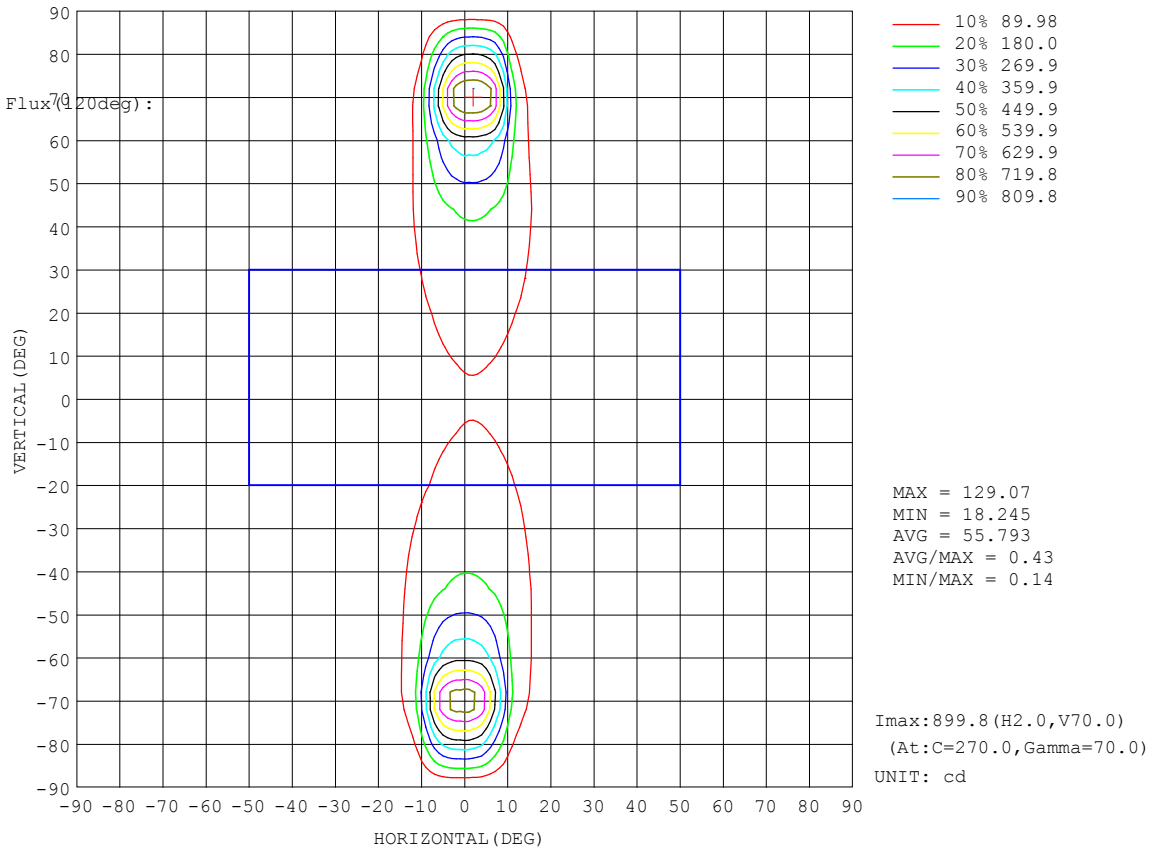
%lamp = 32.4%

Conical surface Flux(70deg):

226.79 lm

%lum = 54.5%

%lamp = 54.5%

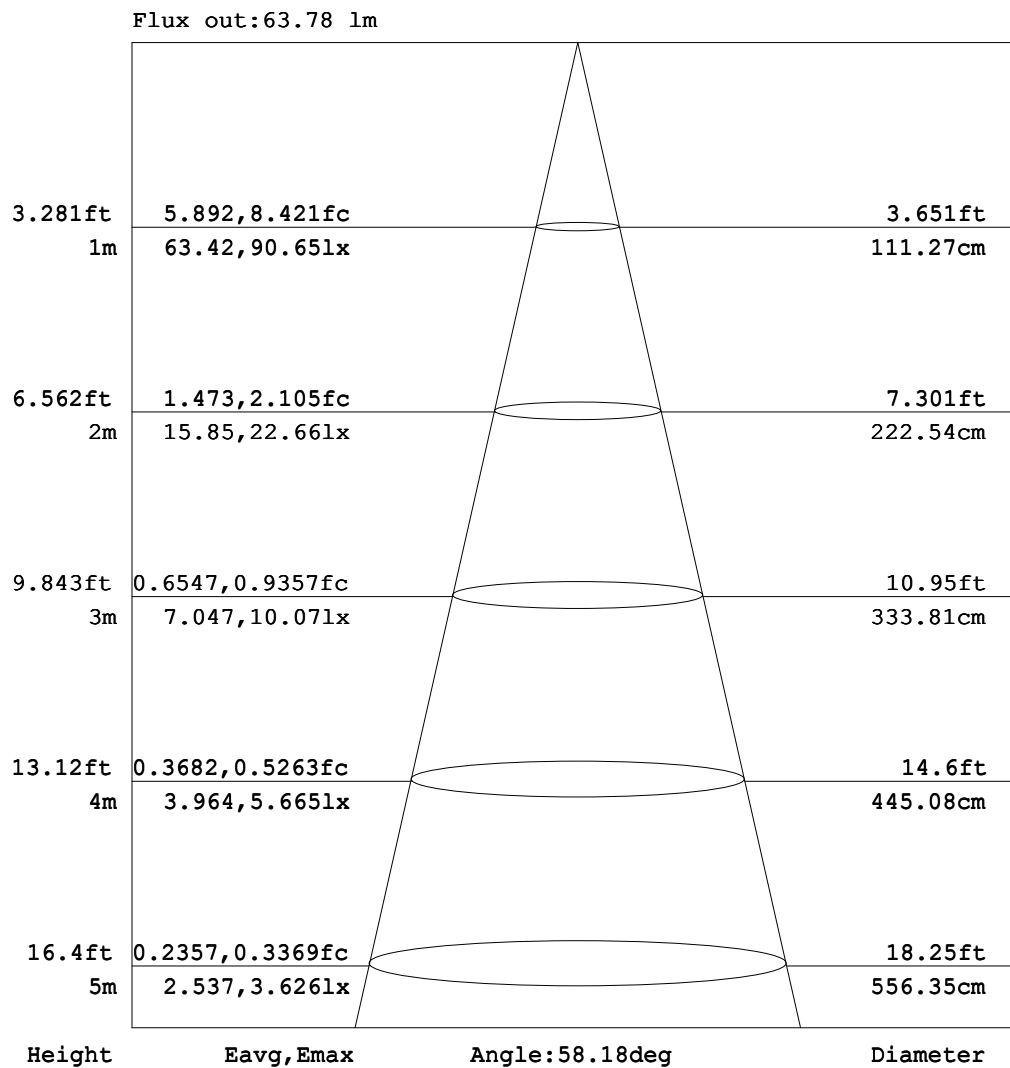


C Range: 0 - 360DEG
C Interval: 5.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:WLM
Test Date:2019-11-15

γ Range: 0 - 90DEG
γ Interval: 0.5DEG
Test System:EVERFINE GO-2000H_V1 SYSTEM V2.0.287
Humidity:65.0%
Test Distance:13.669m [K=1.0000]
Remarks:

AAI Figure

Test:U:0V I:0A P:0W PF:0 Lamp Flux:415.768x1 lm		
NAME: NEMD2/N/DA/NFC/LFP DC	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:2019111502
MFR.: JEWOO	SUR.:0.037	PROTECTION ANGLE:



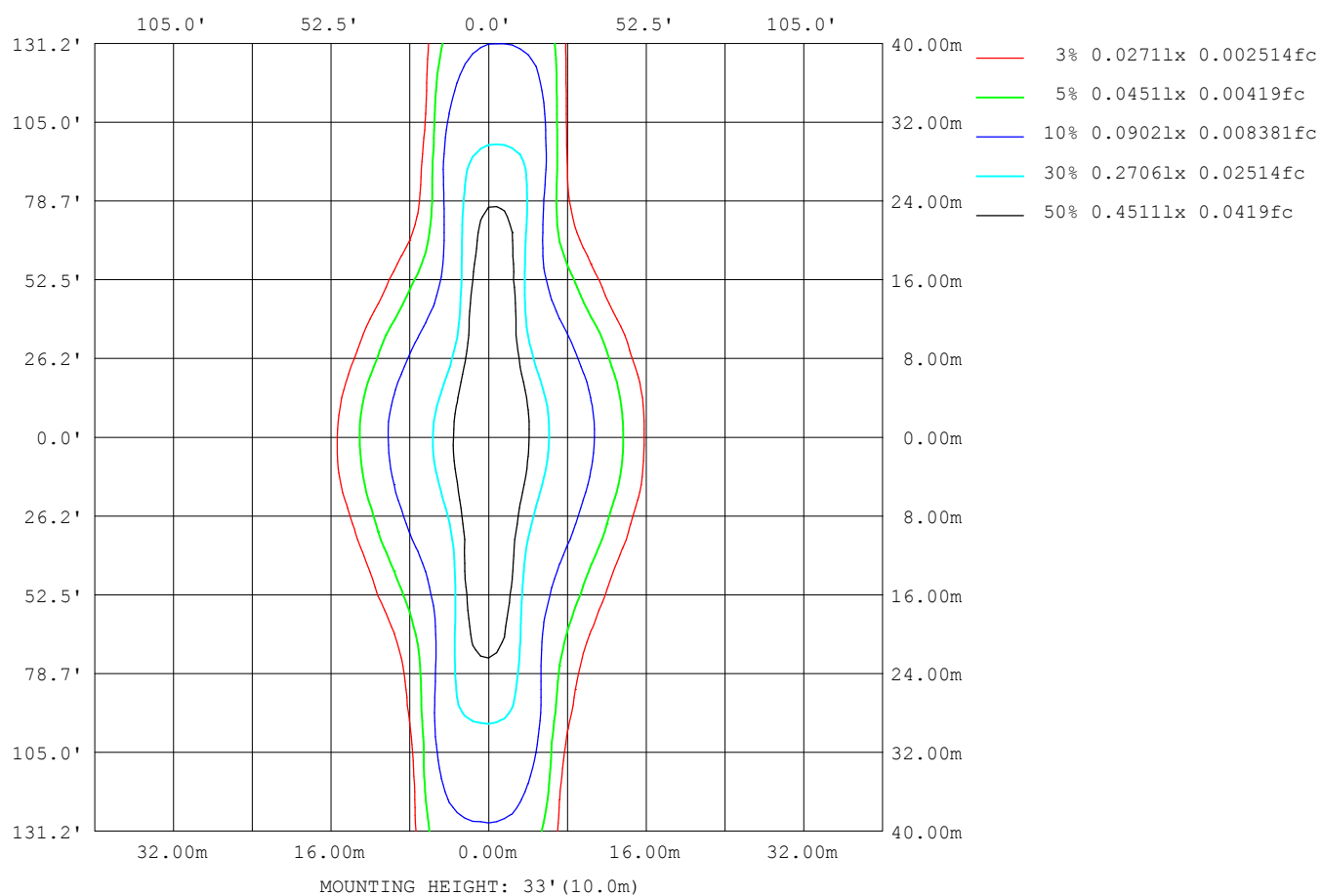
Note:The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

C Range: 0 - 360DEG
C Interval: 5.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:WLM
Test Date:2019-11-15

γ Range: 0 - 90DEG
γ Interval: 0.5DEG
Test System:EVERFINE GO-2000H_V1 SYSTEM V2.0.287
Humidity:65.0%
Test Distance:13.669m [K=1.0000]
Remarks:

ISOLUX DIAGRAM

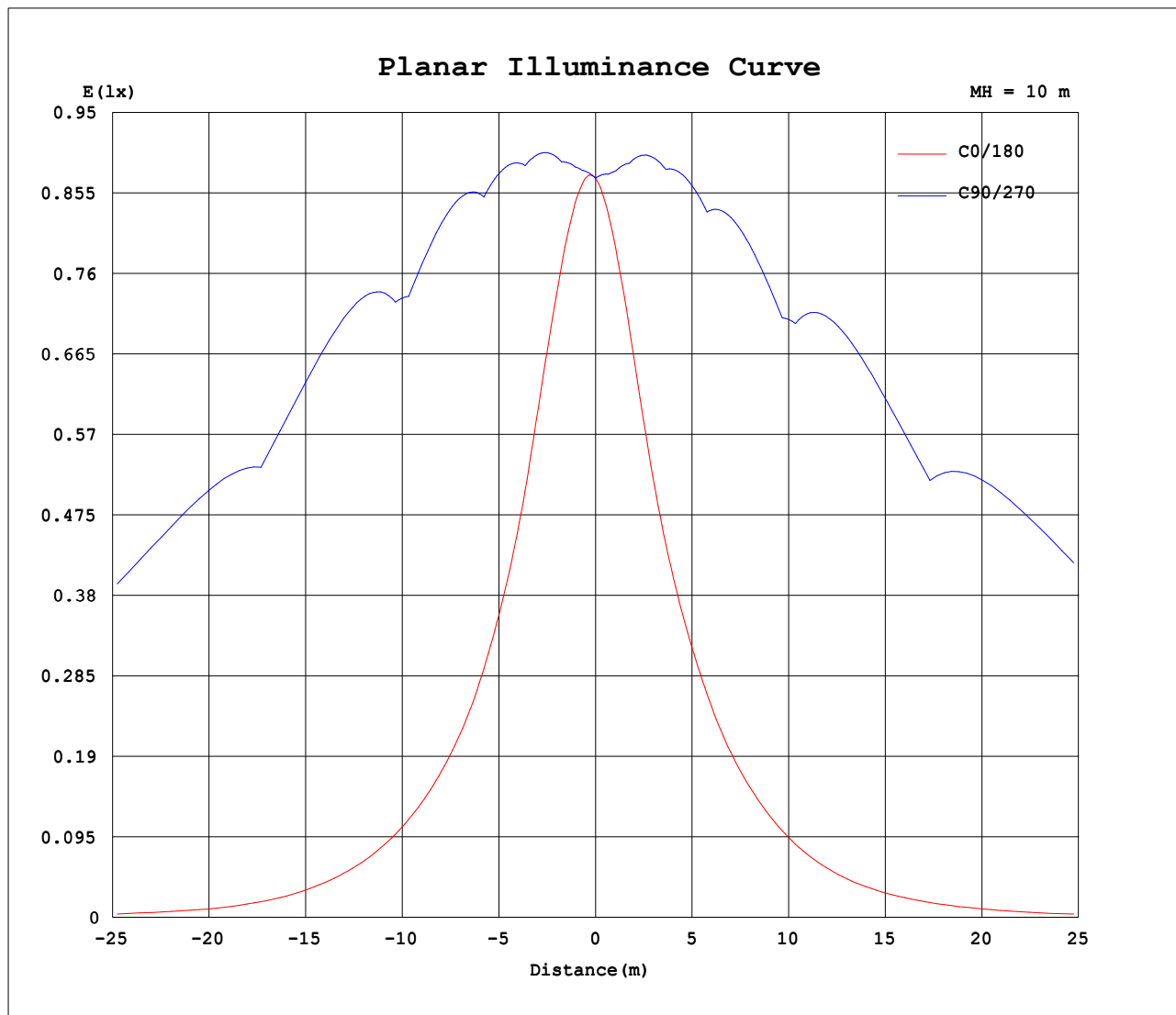
Test:U:0V I:0A P:0W PF:0 Lamp Flux:415.768x1 lm		
NAME: NEMD2/N/DA/NFC/LFP DC	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:2019111502
MFR.: JEWOO	SUR.:0.037	PROTECTION ANGLE:



C Range: 0 - 360DEG
C Interval: 5.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:WLM
Test Date:2019-11-15

γ Range: 0 - 90DEG
 γ Interval: 0.5DEG
Test System:EVERFINE GO-2000H_V1 SYSTEM V2.0.287
Humidity:65.0%
Test Distance:13.669m [K=1.0000]
Remarks:

Planar Illuminance Curve



C Range: 0 - 360DEG
C Interval: 5.0DEG
Test Speed: HIGH
Temperature: 25.3DEG
Operators: WLM
Test Date: 2019-11-15

γ Range: 0 - 90DEG
 γ Interval: 0.5DEG
Test System: EVERFINE GO-2000H_V1 SYSTEM V2.0.287
Humidity: 65.0%
Test Distance: 13.669m [K=1.0000]
Remarks:

UNIT: cd

```

γ Range: 0 - 90DEG
γ Interval: 0.5DEG
Test System:EVERFINE GO-2000H_V1 SYSTEM V2.0.287
Humidity:65.0%
Test Distance:13.669m [K=1.0000]
Remarks:

```

UNIT: cd

```

γ Range: 0 - 90DEG
γ Interval: 0.5DEG
Test System:EVERFINE GO-2000H_V1 SYSTEM V2.0.287
Humidity:65.0%
Test Distance:13.669m [K=1.0000]
Remarks:

```

UNIT: cd

```

γ Range: 0 - 90DEG
γ Interval: 0.5DEG
Test System:EVERFINE GO-2000H_V1 SYSTEM V2.0.287
Humidity:65.0%
Test Distance:13.669m [K=1.0000]
Remarks:

```

UNIT: cd

```

γ Range: 0 - 90DEG
γ Interval: 0.5DEG
Test System:EVERFINE GO-2000H_V1 SYSTEM V2.0.287
Humidity:65.0%
Test Distance:13.669m [K=1.0000]
Remarks:

```