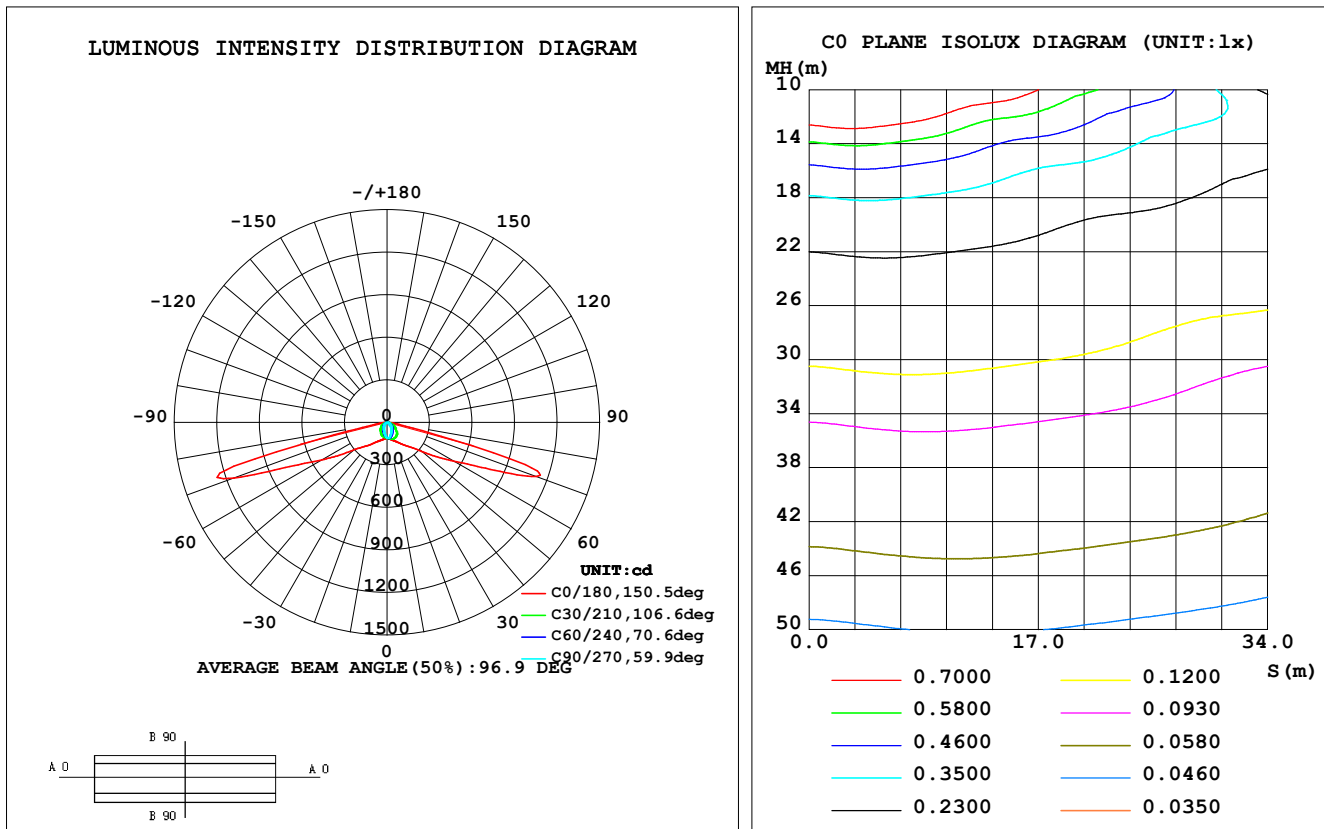


# LUMINAIRE PHOTOMETRIC TEST REPORT

Test:U:0V I:0A P:0W PF:0 Lamp Flux:495.617x1 lm		
NAME: NEMD2-N-1H-AT-LFP-WH	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:2020072703
MFR.: JEWOO	SUR.:0.0001	PROTECTION ANGLE:

DATA OF LAMP		PHOTOMETRIC DATA			
MODEL	NEMD2	I <sub>max</sub> (cd)	1261	S/MH (C0/180)	4.19
NOMINAL POWER (W)		LOR (%)	100.0	S/MH (C90/270)	0.74
RATED VOLTAGE (V)	220	TOTAL FLUX (lm)	495.62	η UP, DN (C0-180)	0.0, 56.5
NOMINAL FLUX (lm)	495.617	CIE CLASS	DIRECT	η UP, DN (C180-360)	0.0, 43.5
LAMPS INSIDE	1	η up (%)	0.0	CIBSE SHR NOM	0.75
TEST VOLTAGE (V)	220	η down (%)	100.0	CIBSE SHR MAX	0.80



C Range: 0 - 360DEG  
 C Interval: 5.0DEG  
 Test Speed: HIGH  
 Temperature: 25.3DEG  
 Operators: WLM  
 Test Date: 2020-07-27

γ Range: 0 - 90DEG  
 γ Interval: 0.5DEG  
 Test System: EVERFINE GO-2000H\_V1 SYSTEM V2.0.287  
 Humidity: 65.0%  
 Test Distance: 13.693m [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
5	114.7	114.6	112.5	113.4	113.3	106.8	103.4	107.6	0- 5	2.650	2.650	0.53,0.53
10	121.0	115.9	107.0	114.1	119.2	101.7	91.80	102.5	5- 10	7.859	10.51	2.12,2.12
15	128.8	114.3	94.23	112.2	126.8	95.26	79.93	95.67	10- 15	12.73	23.24	4.69,4.69
20	138.2	107.5	81.50	104.5	135.8	87.58	68.06	87.56	15- 20	17.03	40.27	8.12,8.12
25	150.5	98.86	70.77	94.99	147.6	78.24	60.07	77.87	20- 25	20.74	61.00	12.3,12.3
30	167.6	89.55	60.03	85.21	163.8	69.71	52.09	69.11	25- 30	24.06	85.06	17.2,17.2
35	190.6	79.35	53.23	74.73	187.1	62.01	46.36	61.44	30- 35	27.08	112.1	22.6,22.6
40	218.7	67.47	46.43	63.00	215.0	53.73	40.63	53.18	35- 40	30.00	142.1	28.7,28.7
45	255.8	60.52	39.69	56.27	248.9	47.93	34.91	47.34	40- 45	32.61	174.7	35.3,35.3
50	319.9	52.37	33.48	48.63	300.4	41.45	29.24	40.86	45- 50	35.14	209.9	42.3,42.3
55	421.7	43.13	27.34	40.09	401.0	34.34	23.57	33.74	50- 55	38.61	248.5	50.1,50.1
60	550.8	35.07	21.20	32.59	530.6	27.69	17.90	27.43	55- 60	43.25	291.7	58.9,58.9
65	767.3	26.05	16.10	24.31	723.1	20.33	13.59	20.47	60- 65	49.09	340.8	68.8,68.8
70	1119	17.71	11.01	16.94	1149	13.86	9.281	14.10	65- 70	59.85	400.7	80.8,80.8
75	467.3	11.04	8.381	11.25	806.8	9.134	7.025	9.136	70- 75	64.61	465.3	93.9,93.9
80	74.69	7.535	5.754	7.608	85.42	6.069	4.768	6.011	75- 80	23.12	488.4	98.5,98.5
85	8.578	4.378	3.126	4.173	14.68	3.191	2.511	3.144	80- 85	5.843	494.3	99.7,99.7
90	0.2437	1.185	0.4984	0.6862	0.1472	0.2990	0.2547	0.2547	85- 90	1.352	495.6	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		

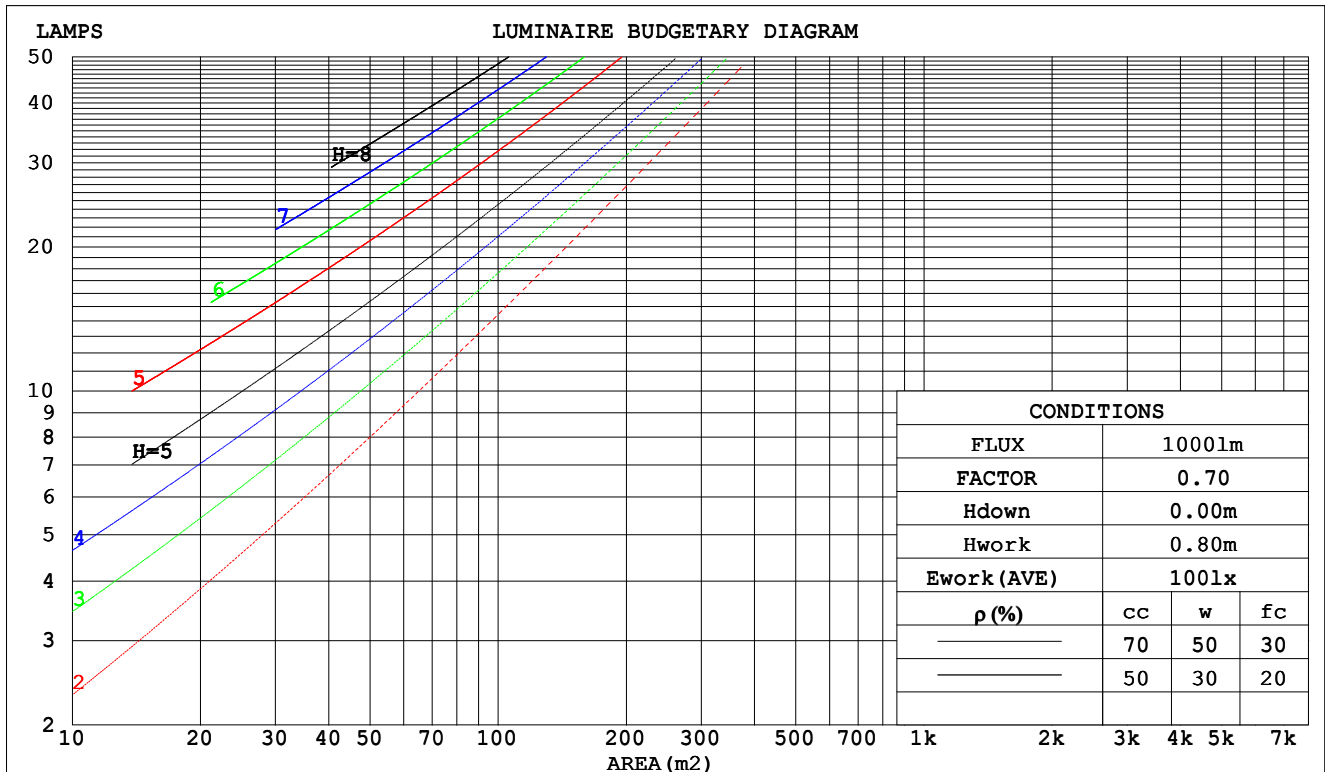
C Range: 0 - 360DEG  
 C Interval: 5.0DEG  
 Test Speed: HIGH  
 Temperature:25.3DEG  
 Operators:WLM  
 Test Date:2020-07-27

$\gamma$  Range: 0 - 90DEG  
 $\gamma$  Interval: 0.5DEG  
 Test System:EVERFINE GO-2000H\_V1 SYSTEM V2.0.287  
 Humidity:65.0%  
 Test Distance:13.693m [K=1.0000]  
 Remarks:

## CU AND LUMINAIRE BUDGETARY ESTIMATE DIAGRAM

Test:U:0V I:0A P:0W PF:0 Lamp Flux:495.617x1 lm		
NAME: NEMD2-N-1H-AT-LFP-WH	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:2020072703
MFR.: JEWOO	SUR.:0.0001	PROTECTION 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	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	.00	.95	.90	.98	.93	.88	.93	.89	.85	.89	.86	.83	.85	.83	.80	.78
2.0	.83	.75	.68	.81	.73	.67	.78	.71	.65	.74	.69	.64	.71	.66	.62	.60
3.0	.71	.61	.53	.69	.60	.52	.66	.58	.51	.63	.56	.50	.60	.54	.49	.47
4.0	.61	.51	.43	.60	.50	.42	.57	.48	.42	.54	.47	.41	.52	.46	.40	.38
5.0	.54	.43	.35	.52	.43	.35	.50	.41	.35	.48	.40	.34	.46	.39	.34	.31
6.0	.48	.37	.30	.47	.37	.30	.45	.36	.30	.43	.35	.29	.41	.34	.29	.27
7.0	.43	.33	.26	.42	.33	.26	.40	.32	.26	.39	.31	.25	.37	.30	.25	.23
8.0	.39	.29	.23	.38	.29	.23	.37	.28	.23	.35	.28	.22	.34	.27	.22	.20
9.0	.35	.26	.20	.35	.26	.20	.34	.26	.20	.32	.25	.20	.31	.25	.20	.18
10.0	.33	.24	.18	.32	.24	.18	.31	.23	.18	.30	.23	.18	.29	.23	.18	.16



C Range: 0 - 360DEG  
 C Interval: 5.0DEG  
 Test Speed: HIGH  
 Temperature:25.3DEG  
 Operators:WLM  
 Test Date:2020-07-27

$\gamma$  Range: 0 - 90DEG  
 $\gamma$  Interval: 0.5DEG  
 Test System:EVERFINE GO-2000H\_V1 SYSTEM V2.0.287  
 Humidity:65.0%  
 Test Distance:13.693m [K=1.0000]  
 Remarks:

## WEC AND CCEC

Test:U:0V I:0A P:0W PF:0 Lamp Flux:495.617x1 lm								
NAME: NEMD2-N-1H-AT-LFP-WH				TYPE:			WEIGHT:	
SPEC.:				DIM.:			SERIAL No.:2020072703	
MFR.: JEWOO				SUR.:0.0001			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	.386	.220	.070	.379	.216	.069	.365	.209	.067	.353	.203	.065	.341	.198	.064		
2.0	.360	.197	.061	.354	.195	.060	.341	.190	.059	.330	.185	.058	.319	.181	.057		
3.0	.326	.173	.052	.320	.171	.052	.309	.167	.051	.299	.164	.050	.289	.160	.050		
4.0	.293	.153	.045	.288	.151	.045	.278	.148	.044	.269	.145	.044	.261	.142	.043		
5.0	.266	.135	.039	.261	.134	.039	.252	.131	.039	.244	.129	.038	.237	.126	.038		
6.0	.242	.121	.035	.238	.120	.035	.230	.118	.034	.223	.116	.034	.216	.114	.034		
7.0	.222	.110	.031	.218	.109	.031	.212	.107	.031	.205	.105	.031	.199	.103	.030		
8.0	.205	.100	.028	.202	.099	.028	.196	.098	.028	.190	.096	.028	.184	.095	.028		
9.0	.190	.092	.026	.187	.091	.026	.182	.090	.025	.176	.088	.025	.172	.087	.025		
10.0	.177	.085	.024	.175	.084	.024	.170	.083	.023	.165	.082	.023	.161	.081	.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	.186	.155	.128	.159	.133	.110	.109	.092	.076	.063	.053	.044	.020	.017	.014	
2.0	.181	.132	.090	.155	.113	.078	.106	.078	.054	.061	.046	.032	.020	.015	.010	
3.0	.175	.115	.066	.150	.099	.058	.103	.069	.040	.060	.040	.024	.019	.013	.008	
4.0	.168	.102	.052	.144	.088	.045	.099	.061	.032	.057	.036	.019	.018	.012	.006	
5.0	.160	.092	.042	.137	.080	.036	.095	.056	.026	.055	.033	.015	.018	.011	.005	
6.0	.152	.084	.035	.131	.073	.031	.090	.051	.022	.052	.030	.013	.017	.010	.004	
7.0	.144	.077	.030	.124	.067	.026	.086	.047	.019	.050	.028	.011	.016	.009	.004	
8.0	.137	.071	.026	.118	.062	.023	.082	.043	.016	.047	.026	.010	.015	.008	.003	
9.0	.130	.066	.023	.112	.058	.020	.078	.040	.014	.045	.024	.009	.015	.008	.003	
10.0	.124	.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:2020-07-27

γ Range: 0 - 90DEG  
 γ Interval: 0.5DEG  
 Test System:EVERFINE GO-2000H\_V1 SYSTEM V2.0.287  
 Humidity:65.0%  
 Test Distance:13.693m [K=1.0000]  
 Remarks:

## UGR(Unified Glare Rating) Table

Test:U:0V I:0A P:0W PF:0 Lamp Flux:495.617x1 lm											
NAME: NEMD2-N-1H-AT-LFP-WH						TYPE:		WEIGHT:			
SPEC.:						DIM.:		SERIAL No.:2020072703			
MFR.: JEWOO						SUR.:0.0001		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		47.3	49.0	47.5	49.2	49.5	31.0	32.8	31.3	33.0	33.2
	3H	54.8	56.5	55.1	56.7	57.0	31.8	33.5	32.2	33.7	34.0
	4H	57.0	58.5	57.3	58.8	59.1	32.2	33.8	32.5	34.1	34.3
	6H	57.0	58.5	57.4	58.8	59.1	32.5	34.0	32.9	34.3	34.6
	8H	57.0	58.4	57.3	58.7	59.0	32.7	34.1	33.0	34.4	34.7
	12H	56.9	58.3	57.3	58.6	59.0	32.8	34.2	33.2	34.5	34.8
4H	2H	46.9	48.5	47.2	48.7	49.0	32.6	34.2	33.0	34.5	34.8
	3H	54.4	55.9	54.8	56.2	56.5	33.4	34.8	33.7	35.1	35.4
	4H	56.6	57.9	57.0	58.3	58.6	33.7	35.0	34.1	35.4	35.7
	6H	56.7	57.9	57.2	58.3	58.6	34.1	35.3	34.5	35.6	36.0
	8H	56.7	57.8	57.1	58.2	58.6	34.3	35.4	34.7	35.8	36.2
	12H	56.7	57.7	57.1	58.1	58.5	34.5	35.5	34.9	35.9	36.3
8H	4H	56.5	57.6	56.9	57.9	58.3	34.6	35.7	35.1	36.1	36.5
	6H	56.6	57.5	57.1	57.9	58.4	35.1	36.0	35.6	36.4	36.9
	8H	56.6	57.4	57.1	57.9	58.3	35.3	36.2	35.8	36.6	37.0
	12H	56.6	57.3	57.1	57.7	58.2	35.6	36.3	36.1	36.7	37.2
12H	4H	56.4	57.4	56.9	57.8	58.3	34.8	35.8	35.3	36.2	36.6
	6H	56.6	57.4	57.1	57.8	58.3	35.3	36.1	35.8	36.6	37.0
	8H	56.6	57.3	57.1	57.7	58.2	35.6	36.3	36.1	36.8	37.3
Variations with the observer position at spacings:											
S = 1.0H		+ 0.3 / - 0.4					+ 0.6 / - 0.6				
1.5H		+ 2.0 / - 3.6					+ 1.2 / - 0.5				
2.0H		+ 3.3 / - 8.0					+ 2.2 / - 1.1				

CIE Pub.117 Corrected 495.6 lm Total Lamp Luminous Flux. (8log(F/F0) = -2.4)

C Range: 0 - 360DEG  
 C Interval: 5.0DEG  
 Test Speed: HIGH  
 Temperature:25.3DEG  
 Operators:WLM  
 Test Date:2020-07-27

γ Range: 0 - 90DEG  
 γ Interval: 0.5DEG  
 Test System:EVERFINE GO-2000H\_V1 SYSTEM V2.0.287  
 Humidity:65.0%  
 Test Distance:13.693m [K=1.0000]  
 Remarks:

## UTILIZATION FACTORS TABLE

Test:U:0V I:0A P:0W PF:0 Lamp Flux:495.617x1 lm		
NAME: NEMD2-N-1H-AT-LFP-WH	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:2020072703
MFR.: JEWOO	SUR.:0.0001	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) $k(RI) \times RCR = 5$									
$k = 0.60$	50	37	29	49	37	29	48	36	29	22
0.80	59	45	37	58	45	36	56	44	36	28
1.00	66	53	44	65	52	44	62	54	43	35
1.25	74	61	52	72	60	51	69	58	51	42
1.50	79	67	58	77	66	58	74	64	57	48
2.00	88	77	68	85	75	68	82	73	66	57
2.50	93	83	75	91	82	74	86	79	73	63
3.00	97	88	81	95	87	80	90	84	78	69
4.00	103	95	90	100	94	88	95	90	86	76
5.00	106	100	95	103	98	93	99	94	90	81
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:2020-07-27

$\gamma$  Range: 0 - 90DEG  
 $\gamma$  Interval: 0.5DEG  
 Test System:EVERFINE GO-2000H\_V1 SYSTEM V2.0.287  
 Humidity:65.0%  
 Test Distance:13.693m [K=1.0000]  
 Remarks:

## ISOCANDELA DIAGRAM

Test:U:0V I:0A P:0W PF:0 Lamp Flux:495.617x1 lm		
NAME: NEMD2-N-1H-AT-LFP-WH	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:2020072703
MFR.: JEWOO	SUR.:0.0001	PROTECTION ANGLE:

Conical surface Flux(90deg):

174.74 lm

%lum = 35.3%

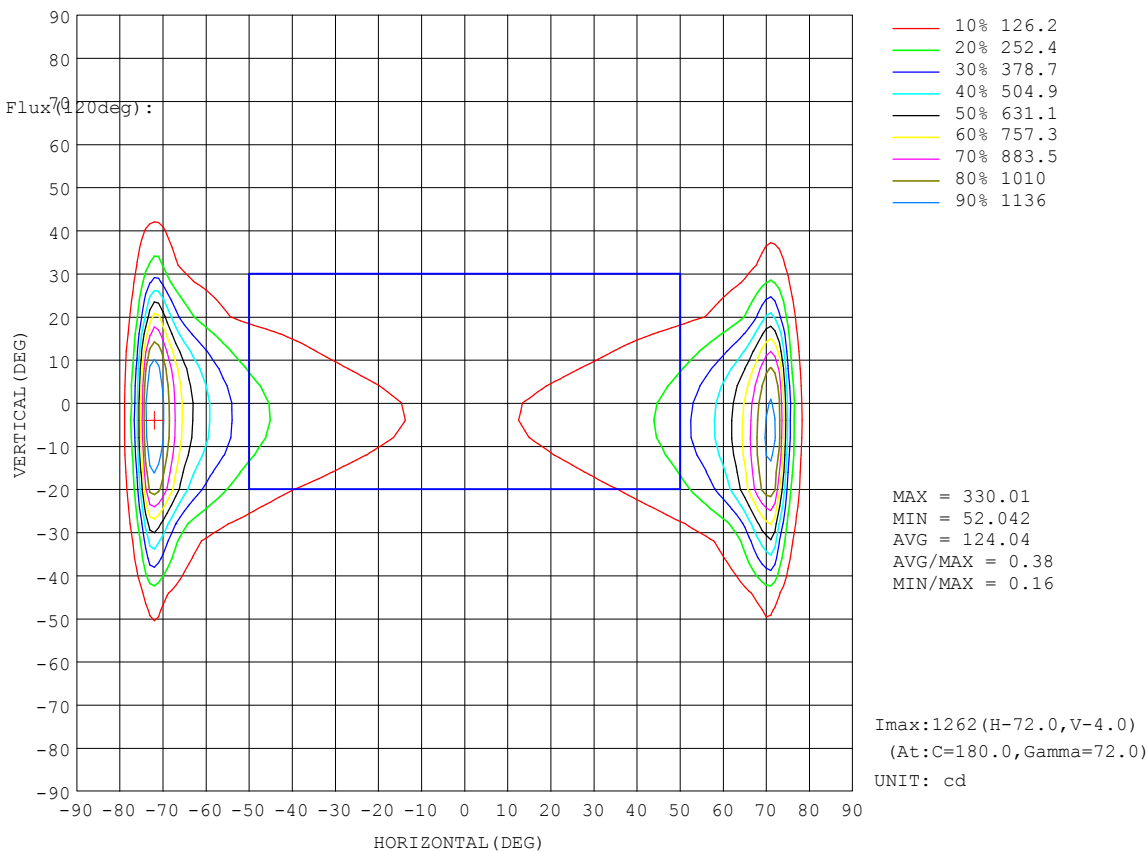
%lamp = 35.3%

Conical surface Flux(70deg):

291.74 lm

%lum = 58.9%

%lamp = 58.9%

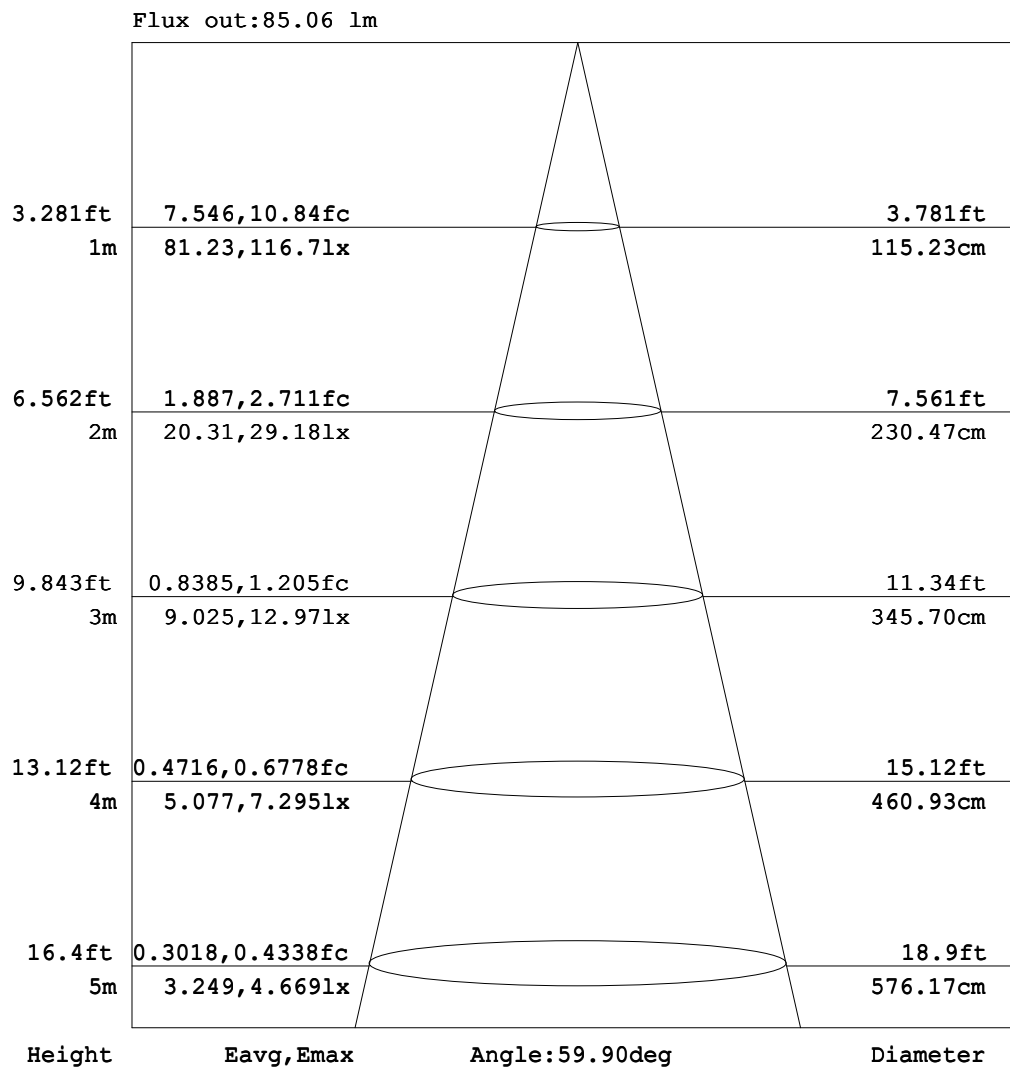


C Range: 0 - 360DEG  
C Interval: 5.0DEG  
Test Speed: HIGH  
Temperature:25.3DEG  
Operators:WLM  
Test Date:2020-07-27

γ Range: 0 - 90DEG  
γ Interval: 0.5DEG  
Test System:EVERFINE GO-2000H\_V1 SYSTEM V2.0.287  
Humidity:65.0%  
Test Distance:13.693m [K=1.0000]  
Remarks:

## AAI Figure

Test:U:0V I:0A P:0W PF:0 Lamp Flux:495.617x1 lm		
NAME: NEMD2-N-1H-AT-LFP-WH	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:2020072703
MFR.: JEWOO	SUR.:0.0001	PROTECTION ANGLE:



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

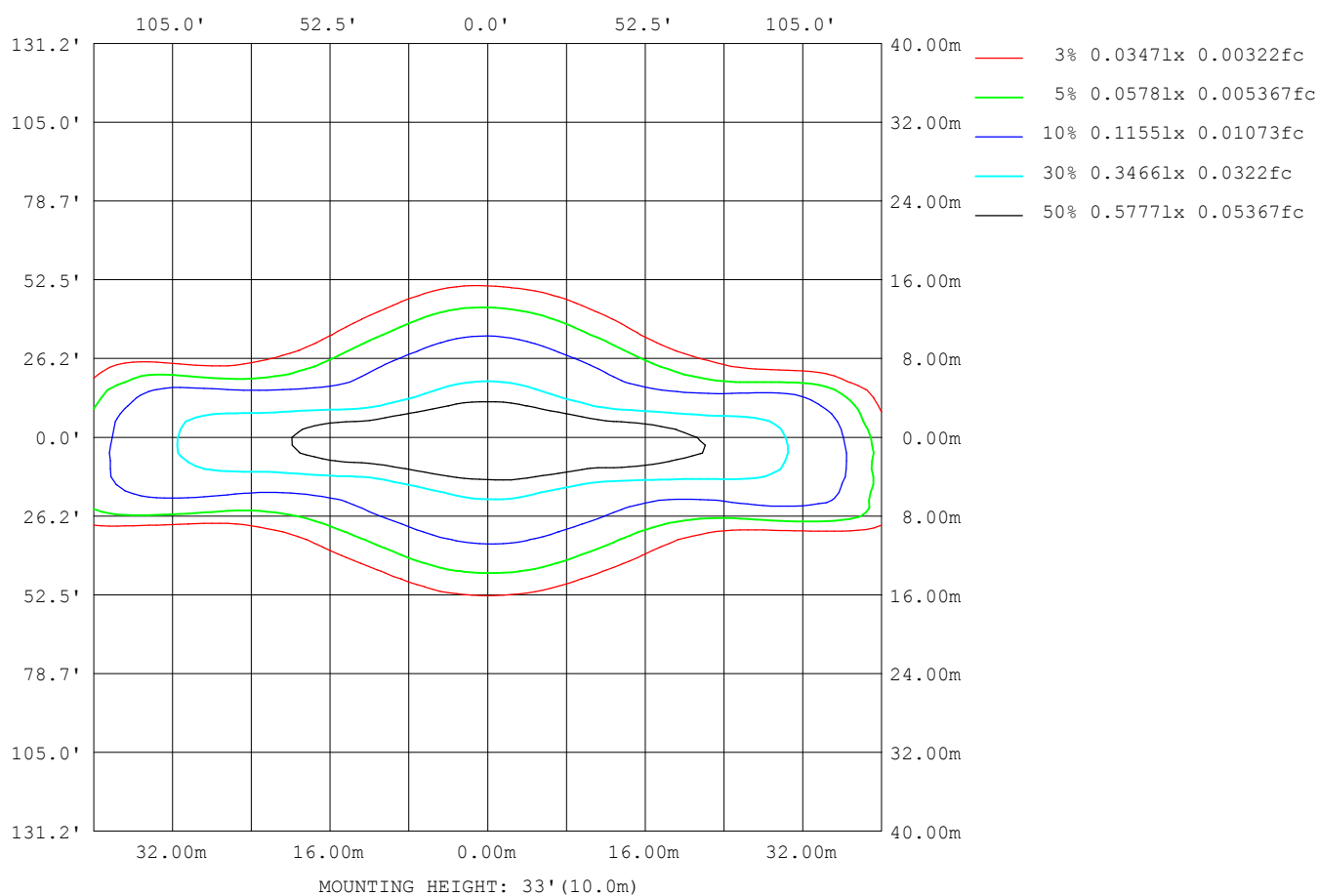
C Range: 0 - 360DEG  
C Interval: 5.0DEG  
Test Speed: HIGH  
Temperature: 25.3DEG  
Operators: WLM  
Test Date: 2020-07-27

γ Range: 0 - 90DEG  
γ Interval: 0.5DEG  
Test System: EVERFINE GO-2000H\_V1 SYSTEM V2.0.287  
Humidity: 65.0%  
Test Distance: 13.693m [K=1.0000]  
Remarks:



## ISOLUX DIAGRAM

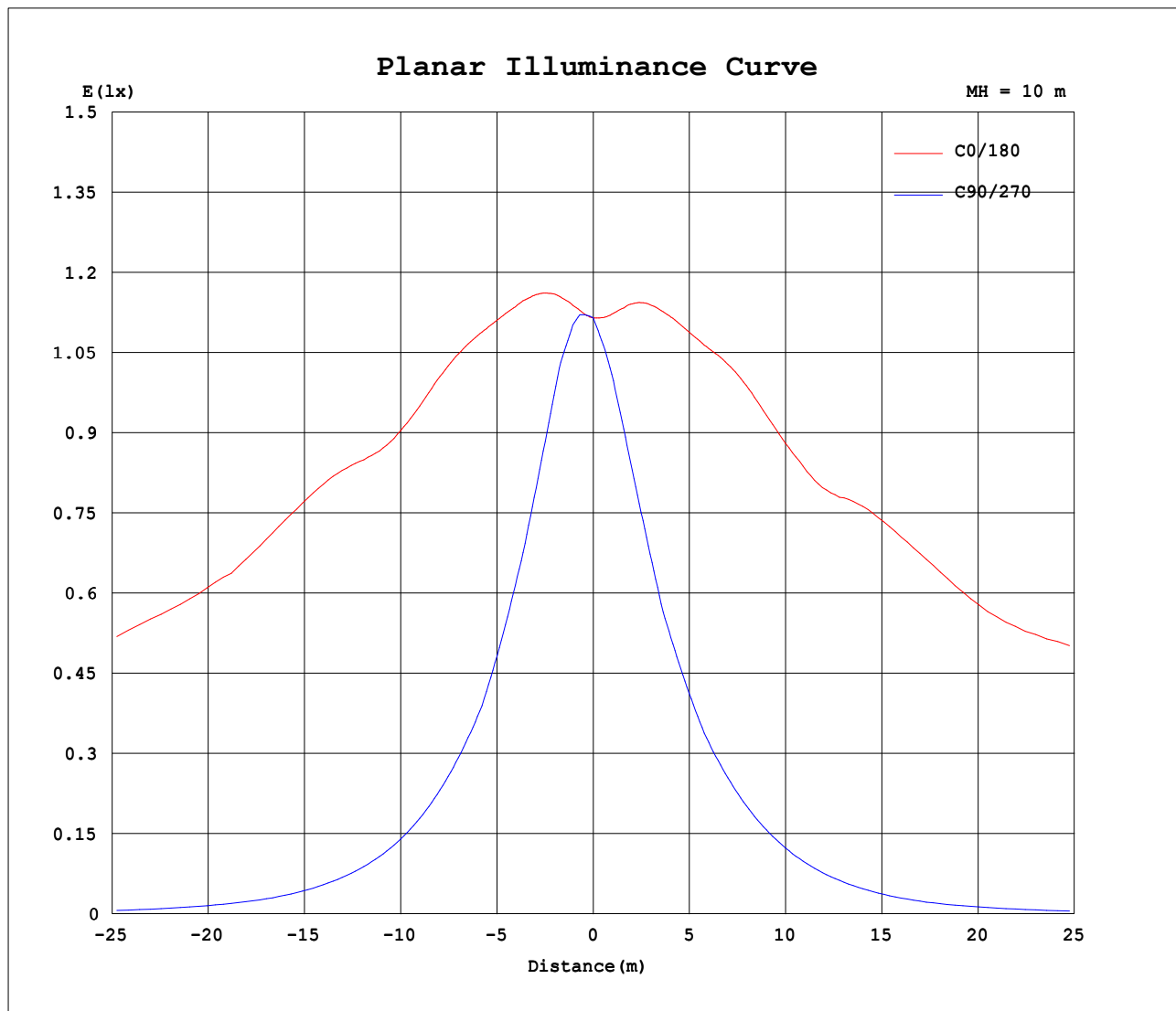
Test:U:0V I:0A P:0W PF:0 Lamp Flux:495.617x1 lm		
NAME: NEMD2-N-1H-AT-LFP-WH	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:2020072703
MFR.: JEWOO	SUR.:0.0001	PROTECTION ANGLE:



C Range: 0 - 360DEG  
C Interval: 5.0DEG  
Test Speed: HIGH  
Temperature:25.3DEG  
Operators:WLM  
Test Date:2020-07-27

γ Range: 0 - 90DEG  
γ Interval: 0.5DEG  
Test System:EVERFINE GO-2000H\_V1 SYSTEM V2.0.287  
Humidity:65.0%  
Test Distance:13.693m [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: 2020-07-27

$\gamma$  Range: 0 - 90DEG  
 $\gamma$  Interval: 0.5DEG  
Test System: EVERFINE GO-2000H\_V1 SYSTEM V2.0.287  
Humidity: 65.0%  
Test Distance: 13.693m [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:13.693m [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:13.693m [K=1.0000]
Remarks:

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