

Scaled data based on original data using
LM-79-2019 Approved Method: Electrical and Photometric Measurements of Solid-
State Lighting Products

Test Report Prepared for
Cooper Lighting Solutions

Brand: NEO-RAY

Report Number: P645028

Luminaire Tested: OMN4DIP-SR4F0-75D100U835-CLBOOB-1DUDD-WW

Issue Date: 2/16/2023



Test Information

Test Method: LM-79-2019
Report Number: P645028
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2203-563-26, G2-2206-689-20)
Test Lab: INNOVATION CENTER
Issue Date: 2/16/2023
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: OMN4DIP-SR4F0-75D100U835-CLBOOB-1DUDD-WW
Description: NEO-RAY CIRQUE SUSPENDED LED LUMINAIRE
DOWNLIGHT - BATWING LENS - 750 LUMENS PER FOOT
UPLIGHT - BATWING OPTIC - 1000 LUMENS PER FOOT
Light Source: 3500K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

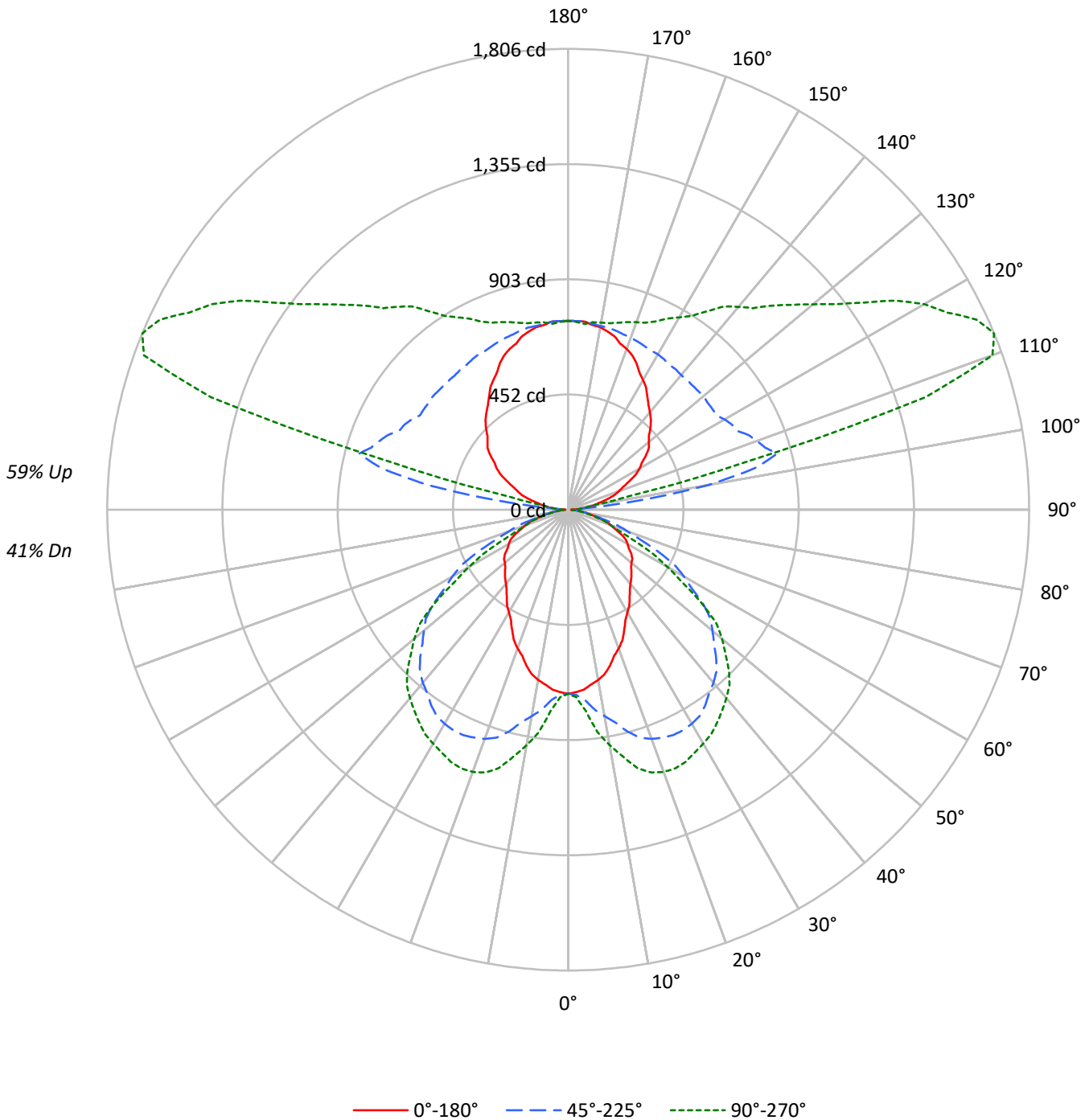
Lumens per Lamp: N/A
Luminaire Lumens: 6765.5 lumens
Efficiency: N/A
Efficacy: 133.2 lumens/watt
Spacing Criteria (0/90/45): 0.99 / 1.87 / 1.75
Luminous Opening: Rectangular (W 0.17' x L: 4' x H: 0')
CIE Type: General Diffuse

Input Watts (W): 50.8
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT

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Luminous Intensity Polar Plot





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COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20				20				20				20				20	
RC	80				70				50				30				10	0
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	0
RCR																		
0	105	105	105	105	96	96	96	96	78	78	78	62	62	62	48	48	48	41
1	96	92	88	84	87	84	80	78	69	66	64	55	53	52	42	41	41	35
2	87	80	74	69	79	73	68	64	60	56	53	48	46	43	37	36	34	29
3	79	70	63	57	72	64	58	53	53	48	45	43	39	37	33	31	29	24
4	73	62	54	48	66	57	50	45	47	42	38	38	34	31	29	27	25	21
5	66	55	47	41	60	50	43	38	42	36	32	34	30	27	26	24	21	18
6	61	49	41	35	55	45	38	33	37	32	28	30	26	23	24	21	19	16
7	56	44	36	31	51	41	34	29	34	28	25	27	23	20	21	19	16	14
8	52	40	32	27	47	37	30	25	31	25	22	25	21	18	20	17	15	12
9	48	36	29	24	44	33	27	22	28	23	19	23	19	16	18	15	13	11
10	45	33	26	21	41	31	24	20	26	21	17	21	17	14	17	14	12	10

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	11641	11641	11641
5°	11468	12122	12828
10°	11106	13472	15369
15°	10567	15052	17518
20°	9940	16423	18785
25°	9260	17355	19417
30°	8660	18069	19727
35°	8263	18443	20061
40°	7988	18661	20322
45°	8003	18724	20331
50°	8128	18532	19753
55°	8495	18173	17937
60°	8664	16895	14567
65°	8776	14800	10697
70°	8389	11637	8313
75°	7530	8684	7006
80°	6397	6862	5616
85°	6206	5595	4668

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 20331 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	73.9	1.1
10°-20°	245.8	3.6
20°-30°	408.3	6.0
30°-40°	515.0	7.6
40°-50°	550.6	8.1
50°-60°	485.9	7.2
60°-70°	311.9	4.6
70°-80°	138.3	2.0
80°-90°	37.5	0.6
90°-100°	100.4	1.5
100°-110°	654.4	9.7
110°-120°	884.7	13.1
120°-130°	719.3	10.6
130°-140°	576.5	8.5
140°-150°	454.2	6.7
150°-160°	332.1	4.9
160°-170°	206.3	3.0
170°-180°	70.3	1.0
0°-30°	728.0	10.8
0°-40°	1243.0	18.4
0°-60°	2279.5	33.7
0°-90°	2767.2	40.9
90°-120°	1639.5	24.2
90°-150°	3389.5	50.1
90°-180°	3998.0	59.1
0°-180°	6765.5	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	721	721	721	721	721	
5°	708	729	748	773	792	66
15°	632	729	900	1009	1048	177
25°	520	705	974	1065	1090	239
35°	419	644	936	996	1018	263
45°	350	550	820	871	890	271
55°	302	433	646	649	637	268
65°	230	290	387	314	280	225
75°	121	134	139	119	112	129
85°	34	29	30	27	25	35
90°	12	16	19	24	21	10
95°	56	81	46	47	54	55
105°	156	232	847	1078	712	165
115°	264	317	731	1511	1764	263
125°	373	423	689	1198	1415	331
135°	456	506	689	985	1131	351
145°	540	585	693	858	949	339
155°	633	656	707	778	814	291
165°	703	712	726	745	759	197
175°	740	744	740	735	731	70
180°	740	740	740	740	740	

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	721.0	721.0	721.0	721.0	721.0
2.5°	715.7	726.2	726.4	730.6	735.8
5°	707.6	728.9	747.9	773.4	791.5
7.5°	690.9	728.9	789.5	848.8	878.3
10°	677.4	729.9	821.7	901.3	937.4
12.5°	660.0	729.5	853.8	949.7	991.0
15°	632.2	728.9	900.5	1008.7	1048.0
17.5°	600.0	725.9	937.0	1045.5	1079.9
20°	578.5	722.8	955.8	1058.9	1093.3
22.5°	554.4	715.7	966.5	1065.5	1097.3
25°	519.8	705.1	974.2	1065.4	1089.9
27.5°	485.9	689.9	974.6	1051.9	1072.8
30°	464.5	677.6	969.2	1038.4	1058.1
32.5°	445.7	664.1	958.5	1022.3	1043.3
35°	419.2	643.8	935.7	996.5	1017.8
37.5°	396.4	620.7	906.8	966.1	991.0
40°	379.0	601.9	885.4	944.5	964.2
42.5°	365.6	582.0	859.9	917.6	934.7
45°	350.5	550.5	820.0	870.7	890.4
47.5°	334.4	518.0	774.0	821.9	834.7
50°	323.6	494.1	737.8	781.5	786.4
52.5°	316.9	469.1	702.9	730.5	731.4
55°	301.8	433.0	645.6	648.7	637.2
57.5°	281.7	390.9	572.8	556.4	528.9
60°	268.3	361.8	523.2	490.4	451.1
62.5°	254.9	333.9	470.9	417.8	371.9
65°	229.7	290.4	387.4	314.5	280.0
67.5°	200.6	242.5	304.2	235.2	212.3
70°	177.7	210.5	246.5	192.5	176.1
72.5°	156.3	178.6	199.5	159.1	150.6
75°	120.7	133.8	139.2	118.9	112.3
77.5°	88.9	89.5	96.6	83.8	80.5
80°	68.8	65.5	73.8	63.6	60.4
82.5°	52.7	48.1	53.7	46.2	44.3
85°	33.5	28.6	30.2	26.8	25.2
87.5°	19.8	16.8	17.3	16.8	14.9
90°	11.7	16.3	19.4	23.9	20.7
92.5°	26.9	27.5	29.2	36.2	36.6
95°	55.7	81.0	45.6	47.1	54.5
97.5°	82.5	144.0	280.0	84.0	71.5
100°	103.5	176.0	554.2	165.0	108.7
102.5°	124.5	201.9	747.8	428.6	234.0
105°	156.0	231.7	847.4	1077.8	712.1
107.5°	189.2	244.5	809.2	1567.8	1466.9
110°	210.2	263.2	786.9	1647.3	1768.5



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	232.5	285.5	764.6	1600.8	1805.8
115°	264.4	317.3	731.1	1510.7	1763.9
117.5°	298.5	350.8	722.7	1413.1	1673.6
120°	323.2	373.2	707.8	1338.9	1610.3
122.5°	341.8	394.2	687.8	1275.1	1524.7
125°	372.7	422.8	689.2	1198.0	1414.8
127.5°	398.0	450.3	688.4	1108.3	1322.7
130°	412.9	467.5	692.1	1047.2	1251.9
132.5°	428.8	483.4	689.5	1020.3	1188.6
135°	456.1	506.2	688.8	985.3	1130.9
137.5°	479.4	533.1	688.8	946.7	1071.4
140°	498.0	548.0	688.8	924.1	1037.8
142.5°	516.6	563.0	692.5	897.9	1004.3
145°	539.9	585.4	693.4	858.4	949.4
147.5°	567.8	607.8	699.0	830.0	900.1
150°	586.4	622.8	702.8	811.1	870.3
152.5°	605.0	637.8	702.8	796.0	844.2
155°	632.9	655.7	707.4	778.0	814.5
157.5°	655.3	677.1	713.0	766.7	793.0
160°	670.2	688.4	716.7	759.1	781.9
162.5°	681.3	699.6	720.4	755.2	770.7
165°	702.8	711.9	726.0	745.0	758.6
167.5°	714.9	723.0	730.7	740.2	748.4
170°	726.0	730.6	730.7	740.1	744.6
172.5°	729.8	737.9	734.4	736.4	740.9
175°	740.0	744.5	740.0	735.2	730.7
177.5°	740.0	743.6	740.0	739.9	736.3
180°	740.0	740.0	740.0	740.0	740.0

(END OF REPORT)