

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: P644865

Luminaire Tested: OMN4DIP-SR4F0-50D100U935-FLLOOB-1DUDD-WW

Issue Date: 2/16/2023



Test Information

Test Method: LM-79-2019
Report Number: P644865
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2203-563-26, G2-2206-689-19)
Test Lab: INNOVATION CENTER
Issue Date: 2/16/2023
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: OMN4DIP-SR4F0-50D100U935-FLLOOB-1DUDD-WW
Description: NEO-RAY CIRQUE SUSPENDED LED LUMINAIRE
DOWNLIGHT - FLAT FROSTED LENS - 500 LUMENS PER FOOT
UPLIGHT - BATWING OPTIC - 1000 LUMENS PER FOOT
Light Source: 3500K CCT, 90 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

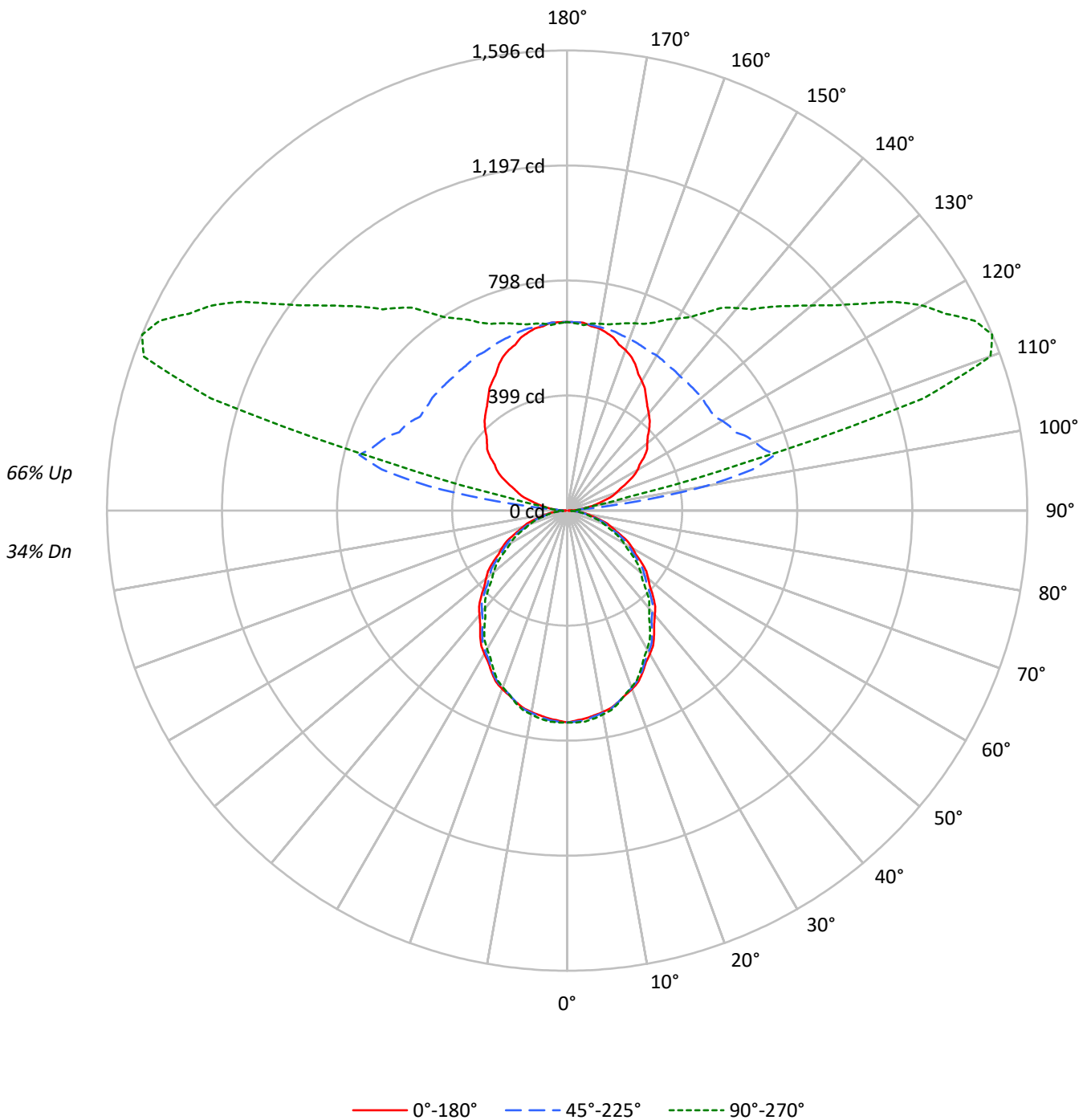
Lumens per Lamp: N/A
Luminaire Lumens: 5306.9 lumens
Efficiency: N/A
Efficacy: 122.6 lumens/watt
Spacing Criteria (0/90/45): 1.17 / 1.13 / 1.26
Luminous Opening: Rectangular (W 0.17' x L: 4' x H: 0')
CIE Type: Semi-Indirect

Input Watts (W): 43.3
Input Voltage (V): 120
Input Current (A_{in}): 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										
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	50	30	10	50	30	10	0														
RCR																																						
0	103	103	103	103	93	93	93	93	74	74	74	57	57	57	41	41	41	34																				
1	94	90	86	83	85	81	78	75	65	63	61	50	49	47	36	35	35	28																				
2	86	79	73	68	77	71	66	62	57	53	50	44	42	40	32	31	29	24																				
3	78	69	62	56	70	63	57	52	50	46	42	39	36	34	28	27	25	20																				
4	72	61	53	48	64	55	49	44	45	40	36	35	31	29	25	23	22	18																				
5	66	54	47	41	59	49	43	37	40	35	31	31	28	25	23	21	19	15																				
6	60	49	41	35	54	44	37	32	36	31	27	28	25	22	21	18	17	13																				
7	56	44	36	31	50	40	33	28	33	27	24	26	22	19	19	17	15	12																				
8	52	40	32	27	47	36	30	25	30	25	21	23	20	17	17	15	13	11																				
9	48	36	29	24	43	33	27	22	27	22	19	21	18	15	16	14	12	10																				
10	45	33	26	21	40	30	24	20	25	20	17	20	16	14	15	13	11	9																				

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	11867	11867	11867
5°	11734	11815	11896
10°	11640	11690	11772
15°	11483	11483	11550
20°	11323	11237	11203
25°	11027	10938	10796
30°	10701	10552	10347
35°	10368	10111	9875
40°	9969	9674	9337
45°	9636	9270	8814
50°	9218	8817	8364
55°	8867	8417	7910
60°	8460	8008	7330
65°	8023	7450	6877
70°	7600	6892	6420
75°	7112	6301	5989
80°	6509	5765	5486
85°	6113	5372	5002

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 9636 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	69.1	1.3
10°-20°	194.0	3.7
20°-30°	282.1	5.3
30°-40°	320.9	6.0
40°-50°	312.9	5.9
50°-60°	267.1	5.0
60°-70°	194.1	3.7
70°-80°	109.8	2.1
80°-90°	35.3	0.7
90°-100°	84.7	1.6
100°-110°	575.3	10.8
110°-120°	779.2	14.7
120°-130°	633.9	11.9
130°-140°	509.2	9.6
140°-150°	401.4	7.6
150°-160°	293.5	5.5
160°-170°	182.3	3.4
170°-180°	62.2	1.2
0°-30°	545.3	10.3
0°-40°	866.2	16.3
0°-60°	1446.2	27.3
0°-90°	1785.3	33.6
90°-120°	1439.2	27.1
90°-150°	2983.7	56.2
90°-180°	3522.0	66.4
0°-180°	5306.9	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	735	735	735	735	735	
5°	724	735	729	728	734	69
15°	687	696	687	686	691	194
25°	619	625	614	603	606	285
35°	526	528	513	501	501	328
45°	422	420	406	392	386	325
55°	315	314	299	285	281	281
65°	210	208	195	183	180	208
75°	114	110	101	97	96	121
85°	33	29	29	28	27	35
90°	4	9	14	17	17	5
95°	41	65	36	40	47	43
105°	132	199	746	952	629	140
115°	229	276	643	1334	1559	228
125°	327	371	606	1057	1250	290
135°	403	447	609	871	999	310
145°	477	517	613	758	839	300
155°	559	579	625	688	720	257
165°	621	629	642	658	670	174
175°	654	658	654	650	646	62
180°	654	654	654	654	654	

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	735.0	735.0	735.0	735.0	735.0
2.5°	728.6	738.0	732.6	732.7	735.8
5°	724.0	734.8	729.0	728.1	734.0
7.5°	716.4	727.0	720.2	719.2	726.8
10°	710.0	719.8	713.0	711.2	718.0
12.5°	701.2	711.0	704.2	701.6	708.4
15°	687.0	695.8	687.0	686.1	691.0
17.5°	671.0	678.6	668.4	665.1	668.8
20°	659.0	665.8	654.0	649.1	652.0
22.5°	643.8	650.6	638.0	630.7	634.4
25°	619.0	624.9	614.0	603.1	606.0
27.5°	592.4	596.9	586.0	574.8	575.8
30°	574.0	576.9	566.0	554.0	555.0
32.5°	554.8	557.0	545.2	532.4	532.6
35°	526.0	528.0	513.0	501.0	501.0
37.5°	495.4	496.6	480.6	467.6	466.2
40°	473.0	475.0	459.0	445.9	443.0
42.5°	452.2	452.6	438.2	425.1	421.4
45°	422.0	420.0	406.0	391.9	386.0
47.5°	389.4	389.4	373.4	359.3	353.8
50°	367.0	367.0	351.0	336.9	333.0
52.5°	346.2	345.4	330.2	316.1	310.6
55°	315.0	314.0	299.0	284.9	281.0
57.5°	282.0	282.0	268.0	252.9	248.6
60°	262.0	262.0	248.0	232.9	227.0
62.5°	240.4	239.6	225.6	212.1	208.6
65°	210.0	208.0	195.0	182.9	180.0
67.5°	181.0	179.0	165.2	155.6	153.6
70°	161.0	159.0	146.0	138.0	136.0
72.5°	141.8	139.1	127.6	121.2	119.2
75°	114.0	110.1	101.0	97.0	96.0
77.5°	87.6	81.0	77.2	74.4	73.4
80°	70.0	64.1	62.0	60.0	59.0
82.5°	54.8	48.9	48.4	47.2	46.2
85°	33.0	29.1	29.0	28.0	27.0
87.5°	14.4	13.1	14.0	14.7	14.7
90°	4.0	9.0	14.2	17.3	17.3
92.5°	17.1	18.9	22.5	29.8	32.2
95°	40.9	65.1	35.9	40.2	47.2
97.5°	65.4	121.2	244.6	73.1	62.7
100°	85.1	150.6	487.3	143.8	95.6
102.5°	104.1	172.7	658.4	377.9	206.7
105°	132.5	198.9	746.4	951.9	629.2
107.5°	161.9	211.6	712.6	1384.9	1296.3
110°	180.8	228.1	692.9	1455.2	1562.8



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	200.6	247.9	673.2	1414.1	1595.7
115°	229.2	276.5	642.6	1333.5	1558.7
117.5°	259.6	306.1	635.2	1247.3	1478.9
120°	282.7	325.9	622.0	1181.7	1422.9
122.5°	298.3	345.6	605.5	1125.3	1347.3
125°	326.9	371.1	605.5	1057.2	1250.2
127.5°	349.7	395.6	606.4	978.2	1168.8
130°	362.9	411.2	609.7	925.3	1106.3
132.5°	378.6	426.8	608.9	901.6	1050.3
135°	403.0	447.3	608.7	870.7	999.3
137.5°	423.6	471.0	608.7	836.5	946.7
140°	440.0	484.3	608.7	816.6	917.1
142.5°	456.5	497.5	611.9	793.4	887.5
145°	477.1	517.3	612.8	758.5	839.0
147.5°	501.7	537.1	617.7	733.4	795.4
150°	518.2	550.4	621.0	716.8	769.0
152.5°	534.6	563.6	621.0	703.4	746.0
155°	559.3	579.4	625.1	687.5	719.7
157.5°	579.0	598.3	630.0	677.5	700.8
160°	592.2	608.3	633.3	670.8	690.9
162.5°	602.1	618.2	636.6	667.4	681.0
165°	621.0	629.0	641.6	658.3	670.3
167.5°	631.7	638.9	645.7	654.1	661.3
170°	641.6	645.6	645.7	654.0	658.0
172.5°	644.8	652.1	649.0	650.7	654.7
175°	653.9	657.9	653.9	649.7	645.7
177.5°	653.9	657.1	653.9	653.8	650.6
180°	653.9	653.9	653.9	653.9	653.9

(END OF REPORT)