

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: P644659

Luminaire Tested: OMN4DIP-SR4F0-100D75U940-CLBOOB-1DUDD-WW

Issue Date: 2/16/2023



Test Information

Test Method: LM-79-2019
Report Number: P644659
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-SR4F0-100D75U940-CLBOOB-1DUDD-WW
Description: NEO-RAY CIRQUE SUSPENDED LED LUMINAIRE
DOWNLIGHT - BATWING LENS - 1000 LUMENS PER FOOT
UPLIGHT - BATWING OPTIC - 750 LUMENS PER FOOT
Light Source: 4000K CCT, 90 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

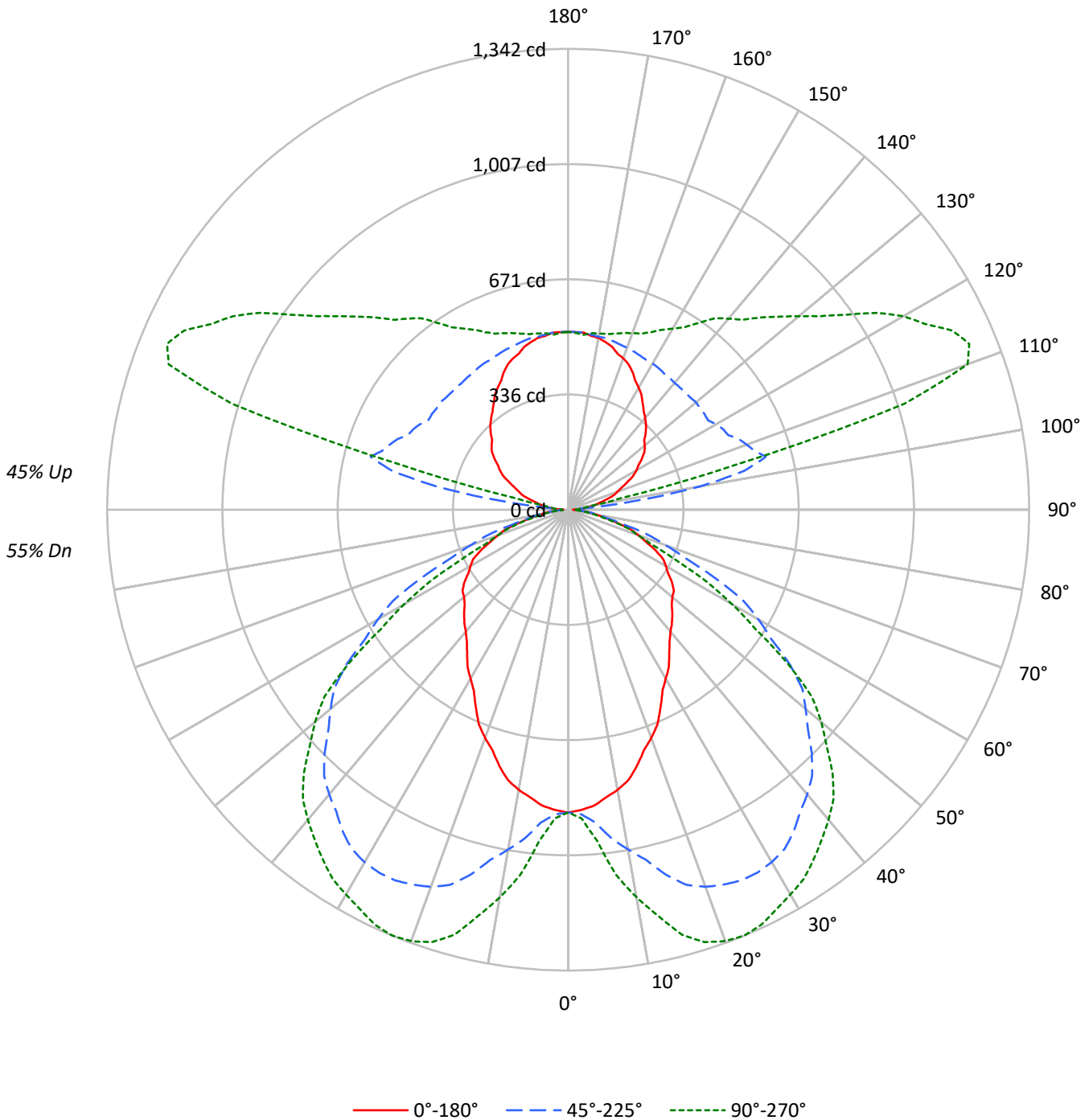
Lumens per Lamp: N/A
Luminaire Lumens: 6192.6 lumens
Efficiency: N/A
Efficacy: 122.1 lumens/watt
Spacing Criteria (0/90/45): 0.99 / 1.87 / 1.75
Luminous Opening: Rectangular (W 0.17' x L: 4' x H: 0')
CIE Type: General Diffuse

Input Watts (W): 50.7
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	50	30	10	0	
RCR																						
0	108	108	108	108	100	100	100	100	86	86	86	73	73	73	60	60	60	55				
1	99	95	91	87	92	88	85	82	76	73	71	64	62	61	54	52	51	46				
2	90	83	76	71	83	77	72	67	66	62	59	56	53	51	47	45	43	39				
3	82	73	65	59	76	68	61	56	58	53	49	50	46	43	42	39	37	33				
4	75	64	56	50	69	60	53	47	52	46	42	44	40	36	37	34	31	28				
5	69	57	49	43	64	53	46	40	46	40	36	39	35	31	33	30	27	24				
6	63	51	43	37	58	48	40	35	41	35	31	35	31	27	30	26	24	21				
7	58	46	38	32	54	43	36	30	37	31	27	32	27	24	27	24	21	18				
8	54	42	34	28	50	39	32	27	34	28	24	29	25	21	25	21	19	16				
9	50	38	30	25	47	35	29	24	31	25	21	27	22	19	23	19	17	14				
10	47	35	27	22	43	33	26	21	28	23	19	25	20	17	21	18	15	13				

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	14236	14236	14236
5°	14024	14822	15686
10°	13580	16472	18792
15°	12921	18404	21421
20°	12155	20081	22969
25°	11323	21223	23742
30°	10590	22095	24121
35°	10104	22551	24532
40°	9767	22818	24850
45°	9784	22893	24859
50°	9939	22662	24154
55°	10390	22221	21931
60°	10595	20657	17809
65°	10732	18094	13081
70°	10258	14228	10164
75°	9208	10618	8571
80°	7820	8387	6862
85°	7595	6836	5706

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°

Vertical Angle: 45°

Luminance: 24859 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	90.4	1.5
10°-20°	300.5	4.9
20°-30°	499.2	8.1
30°-40°	629.8	10.2
40°-50°	673.2	10.9
50°-60°	594.2	9.6
60°-70°	381.3	6.2
70°-80°	169.1	2.7
80°-90°	45.0	0.7
90°-100°	75.2	1.2
100°-110°	461.0	7.4
110°-120°	621.5	10.0
120°-130°	504.8	8.2
130°-140°	403.5	6.5
140°-150°	317.8	5.1
150°-160°	232.4	3.8
160°-170°	144.4	2.3
170°-180°	49.2	0.8
0°-30°	890.1	14.4
0°-40°	1519.9	24.5
0°-60°	2787.3	45.0
0°-90°	3382.7	54.6
90°-120°	1157.7	18.7
90°-150°	2383.9	38.5
90°-180°	2810.0	45.4
0°-180°	6192.6	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	882	882	882	882	882	
5°	865	891	914	946	968	81
15°	773	891	1101	1233	1282	216
25°	636	862	1191	1303	1333	293
35°	513	787	1144	1218	1245	322
45°	428	673	1003	1065	1089	331
55°	369	530	789	793	779	327
65°	281	355	474	384	342	275
75°	148	164	170	145	137	158
85°	41	35	37	33	31	43
90°	14	18	19	22	18	11
95°	49	63	36	36	40	46
105°	115	167	596	755	498	122
115°	189	226	514	1058	1234	188
125°	263	298	485	839	990	234
135°	319	354	482	689	791	246
145°	378	410	485	601	664	237
155°	443	459	495	544	570	203
165°	492	498	508	521	531	138
175°	518	521	518	514	511	49
180°	518	518	518	518	518	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	881.7	881.7	881.7	881.7	881.7
2.5°	875.1	887.9	888.2	893.3	899.7
5°	865.3	891.3	914.5	945.7	967.8
7.5°	844.8	891.3	965.3	1037.9	1074.0
10°	828.3	892.5	1004.7	1102.0	1146.2
12.5°	807.0	892.0	1044.0	1161.2	1211.8
15°	773.0	891.3	1101.0	1233.4	1281.5
17.5°	733.6	887.6	1145.7	1278.3	1320.4
20°	707.4	883.8	1168.7	1294.7	1336.8
22.5°	677.9	875.1	1181.8	1302.9	1341.8
25°	635.6	862.2	1191.3	1302.7	1332.7
27.5°	594.2	843.6	1191.7	1286.2	1311.8
30°	568.0	828.6	1185.1	1269.7	1293.8
32.5°	545.0	812.0	1172.0	1250.1	1275.7
35°	512.6	787.2	1144.1	1218.5	1244.6
37.5°	484.7	759.0	1108.8	1181.3	1211.8
40°	463.4	736.0	1082.6	1154.9	1179.0
42.5°	447.0	711.6	1051.4	1122.0	1142.9
45°	428.5	673.1	1002.6	1064.7	1088.7
47.5°	408.8	633.4	946.4	1005.0	1020.7
50°	395.7	604.2	902.2	955.6	961.6
52.5°	387.5	573.6	859.5	893.2	894.4
55°	369.1	529.5	789.4	793.2	779.1
57.5°	344.5	478.0	700.4	680.4	646.7
60°	328.1	442.3	639.7	599.7	551.5
62.5°	311.7	408.3	575.7	510.9	454.8
65°	280.9	355.1	473.6	384.5	342.4
67.5°	245.2	296.5	371.9	287.6	259.6
70°	217.3	257.4	301.4	235.3	215.3
72.5°	191.1	218.4	244.0	194.5	184.1
75°	147.6	163.7	170.2	145.4	137.4
77.5°	108.7	109.5	118.1	102.4	98.4
80°	84.1	80.1	90.2	77.8	73.8
82.5°	64.4	58.8	65.6	56.5	54.1
85°	41.0	35.0	36.9	32.8	30.8
87.5°	24.2	20.0	20.2	19.1	16.7
90°	14.4	17.5	18.8	22.0	18.0
92.5°	27.1	25.5	25.0	29.2	27.7
95°	48.6	62.9	36.3	35.6	39.9
97.5°	66.3	106.8	199.3	60.5	50.9
100°	80.3	128.4	390.4	117.2	77.0
102.5°	94.3	146.6	525.9	300.9	163.9
105°	115.3	167.4	595.6	755.0	498.3
107.5°	138.3	175.5	568.9	1097.9	1026.5
110°	152.3	188.5	553.3	1153.5	1237.5



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	168.0	204.2	537.6	1121.0	1263.5
115°	189.4	225.6	514.2	1057.9	1234.2
117.5°	213.1	249.0	508.3	989.7	1171.1
120°	229.6	264.7	497.9	937.7	1126.8
122.5°	242.7	278.6	483.2	893.1	1066.8
125°	263.4	298.4	484.9	839.2	990.0
127.5°	280.3	317.5	483.5	776.2	925.5
130°	290.7	328.9	486.1	732.7	876.0
132.5°	300.4	338.6	482.8	713.9	831.7
135°	319.1	354.2	482.0	689.4	791.3
137.5°	335.4	373.0	482.0	662.4	749.7
140°	348.5	383.5	482.0	646.6	726.2
142.5°	361.5	394.0	484.6	628.3	702.8
145°	377.8	409.6	485.2	600.7	664.3
147.5°	397.3	425.3	489.1	580.8	629.8
150°	410.3	435.8	491.7	567.6	609.0
152.5°	423.4	446.3	491.7	557.0	590.7
155°	442.9	458.8	495.0	544.4	569.9
157.5°	458.5	473.8	498.9	536.4	554.9
160°	468.9	481.7	501.5	531.2	547.1
162.5°	476.8	489.5	504.1	528.5	539.3
165°	491.7	498.1	508.0	521.3	530.8
167.5°	500.2	505.9	511.3	517.9	523.7
170°	508.0	511.2	511.3	517.9	521.0
172.5°	510.6	516.4	513.9	515.3	518.4
175°	517.8	521.0	517.8	514.5	511.3
177.5°	517.8	520.3	517.8	517.7	515.2
180°	517.8	517.8	517.8	517.8	517.8

(END OF REPORT)