

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: P645002

Luminaire Tested: OMN4DIP-SR4F0-50D75U840-CLBOOB-1DUDD-WW

Issue Date: 2/16/2023



Test Information

Test Method: LM-79-2019
Report Number: P645002
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-SR4F0-50D75U840-CLBOOB-1DUDD-WW
Description: NEO-RAY CIRQUE SUSPENDED LED LUMINAIRE
DOWNLIGHT - BATWING LENS - 500 LUMENS PER FOOT
UPLIGHT - BATWING OPTIC - 750 LUMENS PER FOOT
Light Source: 4000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

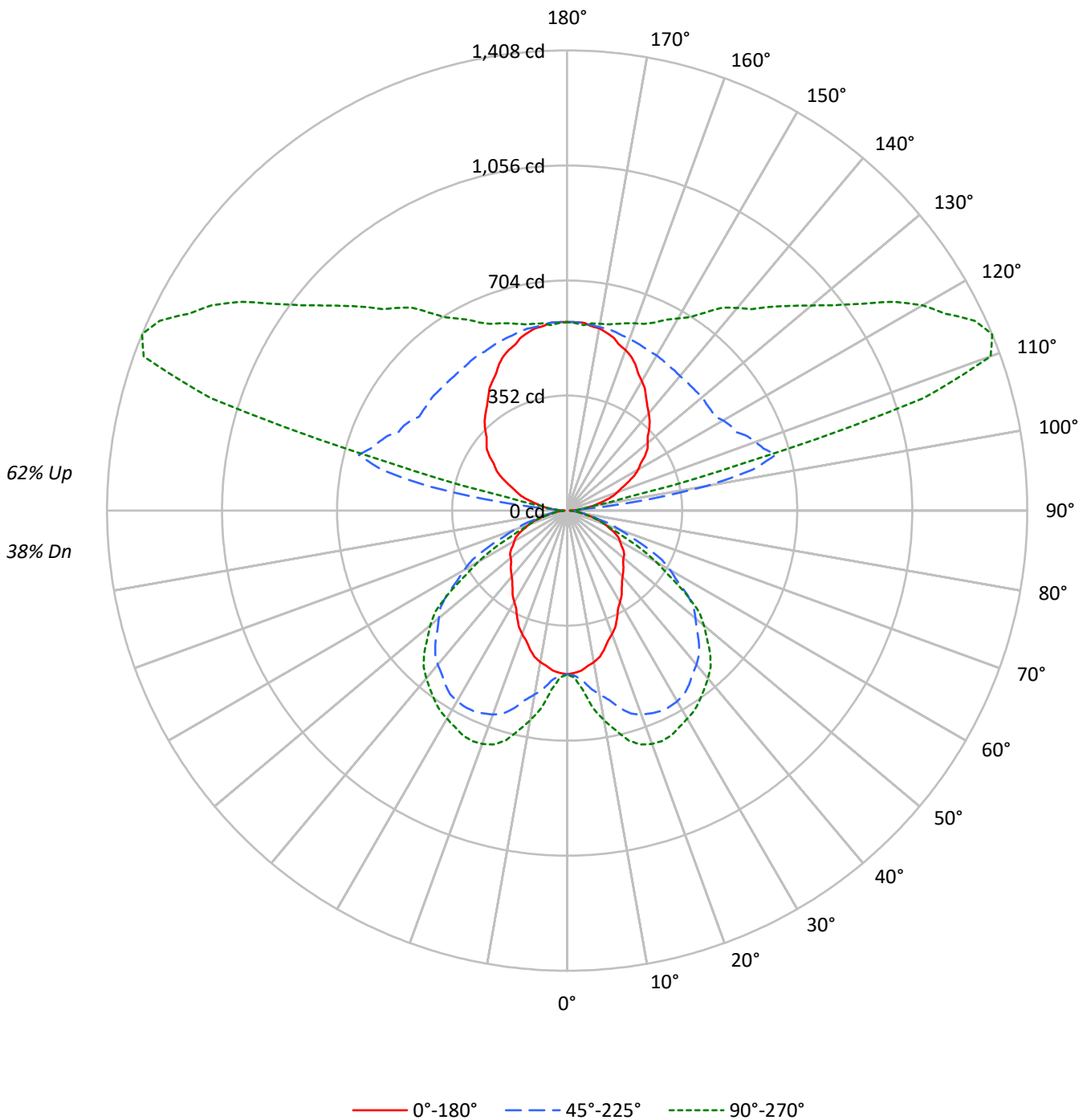
Lumens per Lamp: N/A
Luminaire Lumens: 5038.9 lumens
Efficiency: N/A
Efficacy: 143.6 lumens/watt
Spacing Criteria (0/90/45): 0.99 / 1.87 / 1.75
Luminous Opening: Rectangular (W 0.17' x L: 4' x H: 0')
CIE Type: Semi-Indirect

Input Watts (W): 35.1
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	104	104	104	104	95	95	95	95	77	77	77	60	60	60	45	45	45	38
1	95	91	87	84	86	83	80	77	67	65	63	53	52	50	40	39	38	32
2	87	79	73	68	78	72	67	63	59	55	52	47	44	42	35	34	32	27
3	79	70	63	57	71	64	57	52	52	47	44	41	38	35	31	29	27	23
4	72	62	54	48	65	56	49	44	46	41	37	37	33	30	28	25	23	19
5	66	55	47	41	60	50	43	38	41	36	32	33	29	26	25	22	20	17
6	61	49	41	35	55	45	38	33	37	31	27	29	25	23	22	20	18	15
7	56	44	36	31	51	40	33	28	33	28	24	27	23	20	20	18	16	13
8	52	40	32	27	47	36	30	25	30	25	21	24	20	17	19	16	14	11
9	48	36	29	24	44	33	26	22	27	22	19	22	18	16	17	14	12	10
10	45	33	26	21	41	30	24	20	25	20	17	20	17	14	16	13	11	9

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	8091	8091	8091
5°	7971	8425	8916
10°	7719	9361	10681
15°	7345	10460	12176
20°	6909	11414	13055
25°	6437	12063	13495
30°	6018	12558	13711
35°	5744	12818	13943
40°	5552	12969	14124
45°	5562	13013	14129
50°	5649	12881	13730
55°	5906	12631	12467
60°	6022	11741	10123
65°	6101	10285	7435
70°	5830	8087	5778
75°	5234	6032	4872
80°	4444	4770	3905
85°	4316	3890	3242

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 14129 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	51.4	1.0
10°-20°	170.8	3.4
20°-30°	283.7	5.6
30°-40°	357.9	7.1
40°-50°	382.6	7.6
50°-60°	337.7	6.7
60°-70°	216.8	4.3
70°-80°	96.1	1.9
80°-90°	26.2	0.5
90°-100°	77.5	1.5
100°-110°	509.7	10.1
110°-120°	689.5	13.7
120°-130°	560.6	11.1
130°-140°	449.5	8.9
140°-150°	354.2	7.0
150°-160°	259.0	5.1
160°-170°	160.9	3.2
170°-180°	54.9	1.1
0°-30°	505.9	10.0
0°-40°	863.9	17.1
0°-60°	1584.2	31.4
0°-90°	1923.3	38.2
90°-120°	1276.7	25.3
90°-150°	2640.9	52.4
90°-180°	3116.0	61.8
0°-180°	5038.9	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	501	501	501	501	501	
5°	492	507	520	538	550	46
15°	439	507	626	701	728	123
25°	361	490	677	740	758	166
35°	291	448	650	693	707	183
45°	244	383	570	605	619	188
55°	210	301	449	451	443	186
65°	160	202	269	219	195	156
75°	84	93	97	83	78	90
85°	23	20	21	19	18	25
90°	8	12	14	18	16	7
95°	42	62	35	36	42	42
105°	121	180	660	840	555	128
115°	205	247	570	1178	1375	204
125°	290	329	537	934	1103	258
135°	356	395	537	768	882	274
145°	421	456	541	669	740	264
155°	494	511	552	607	635	227
165°	548	555	566	581	592	154
175°	577	580	577	573	570	55
180°	577	577	577	577	577	

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	501.1	501.1	501.1	501.1	501.1
2.5°	497.4	504.7	504.9	507.7	511.4
5°	491.8	506.6	519.8	537.5	550.1
7.5°	480.1	506.6	548.7	589.9	610.4
10°	470.8	507.3	571.0	626.4	651.5
12.5°	458.7	507.0	593.4	660.0	688.8
15°	439.4	506.6	625.8	701.0	728.4
17.5°	417.0	504.5	651.2	726.6	750.5
20°	402.1	502.3	664.3	735.9	759.8
22.5°	385.3	497.4	671.7	740.5	762.6
25°	361.3	490.0	677.1	740.4	757.5
27.5°	337.7	479.5	677.3	731.0	745.6
30°	322.8	471.0	673.6	721.7	735.4
32.5°	309.8	461.5	666.1	710.5	725.1
35°	291.4	447.5	650.3	692.6	707.4
37.5°	275.5	431.4	630.2	671.4	688.8
40°	263.4	418.4	615.3	656.4	670.1
42.5°	254.1	404.5	597.6	637.7	649.6
45°	243.6	382.6	569.9	605.2	618.8
47.5°	232.4	360.0	537.9	571.2	580.1
50°	224.9	343.4	512.8	543.2	546.6
52.5°	220.3	326.0	488.5	507.7	508.3
55°	209.8	300.9	448.7	450.8	442.9
57.5°	195.8	271.7	398.1	386.7	367.6
60°	186.5	251.4	363.6	340.8	313.5
62.5°	177.1	232.1	327.2	290.4	258.5
65°	159.7	201.8	269.2	218.6	194.6
67.5°	139.4	168.6	211.4	163.5	147.5
70°	123.5	146.3	171.3	133.8	122.4
72.5°	108.6	124.1	138.7	110.6	104.7
75°	83.9	93.0	96.7	82.6	78.1
77.5°	61.8	62.2	67.1	58.2	55.9
80°	47.8	45.5	51.3	44.2	42.0
82.5°	36.6	33.4	37.3	32.1	30.8
85°	23.3	19.9	21.0	18.6	17.5
87.5°	13.8	11.7	12.2	11.9	10.6
90°	8.2	11.7	14.3	17.8	15.5
92.5°	19.7	20.5	22.0	27.6	28.2
95°	41.8	62.1	34.9	36.3	42.2
97.5°	63.0	111.3	217.8	65.3	55.6
100°	79.4	136.3	431.7	128.3	84.6
102.5°	95.9	156.6	582.7	334.0	182.4
105°	120.7	179.8	660.3	840.2	555.2
107.5°	146.5	189.9	630.6	1222.3	1143.8
110°	163.0	204.5	613.1	1284.3	1378.9



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	180.4	221.9	595.7	1248.0	1408.0
115°	205.4	246.9	569.6	1177.8	1375.3
117.5°	232.0	273.0	563.1	1101.7	1304.9
120°	251.4	290.5	551.4	1043.8	1255.6
122.5°	265.9	306.9	536.0	994.1	1188.8
125°	290.2	329.2	536.9	934.0	1103.2
127.5°	310.1	350.7	536.5	864.0	1031.3
130°	321.7	364.2	539.4	816.5	976.2
132.5°	334.3	376.9	537.5	795.5	926.8
135°	355.6	394.7	537.1	768.3	881.8
137.5°	373.8	415.6	537.1	738.1	835.4
140°	388.3	427.3	537.1	720.5	809.2
142.5°	402.8	439.0	540.0	700.1	783.1
145°	420.9	456.4	540.7	669.3	740.3
147.5°	442.7	473.9	545.0	647.2	701.8
150°	457.2	485.6	548.0	632.5	678.6
152.5°	471.7	497.3	548.0	620.7	658.3
155°	493.5	511.3	551.6	606.7	635.0
157.5°	510.9	528.0	555.9	597.8	618.3
160°	522.5	536.7	558.8	591.9	609.6
162.5°	531.3	545.5	561.7	588.9	600.9
165°	548.0	555.0	566.1	580.9	591.5
167.5°	557.4	563.8	569.7	577.1	583.5
170°	566.1	569.6	569.7	577.1	580.6
172.5°	569.0	575.4	572.6	574.2	577.7
175°	577.0	580.5	577.0	573.3	569.7
177.5°	577.0	579.8	577.0	576.9	574.1
180°	577.0	577.0	577.0	577.0	577.0

(END OF REPORT)