

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: P644612

Luminaire Tested: OMN4DIP-SR4F0-100D50U840-CLBOOB-1DUDD-WW

Issue Date: 2/16/2023



Test Information

Test Method: LM-79-2019
Report Number: P644612
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-SR4F0-100D50U840-CLBOOB-1DUDD-WW
Description: NEO-RAY CIRQUE SUSPENDED LED LUMINAIRE
DOWNLIGHT - BATWING LENS - 1000 LUMENS PER FOOT
UPLIGHT - BATWING OPTIC - 500 LUMENS PER FOOT
Light Source: 4000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

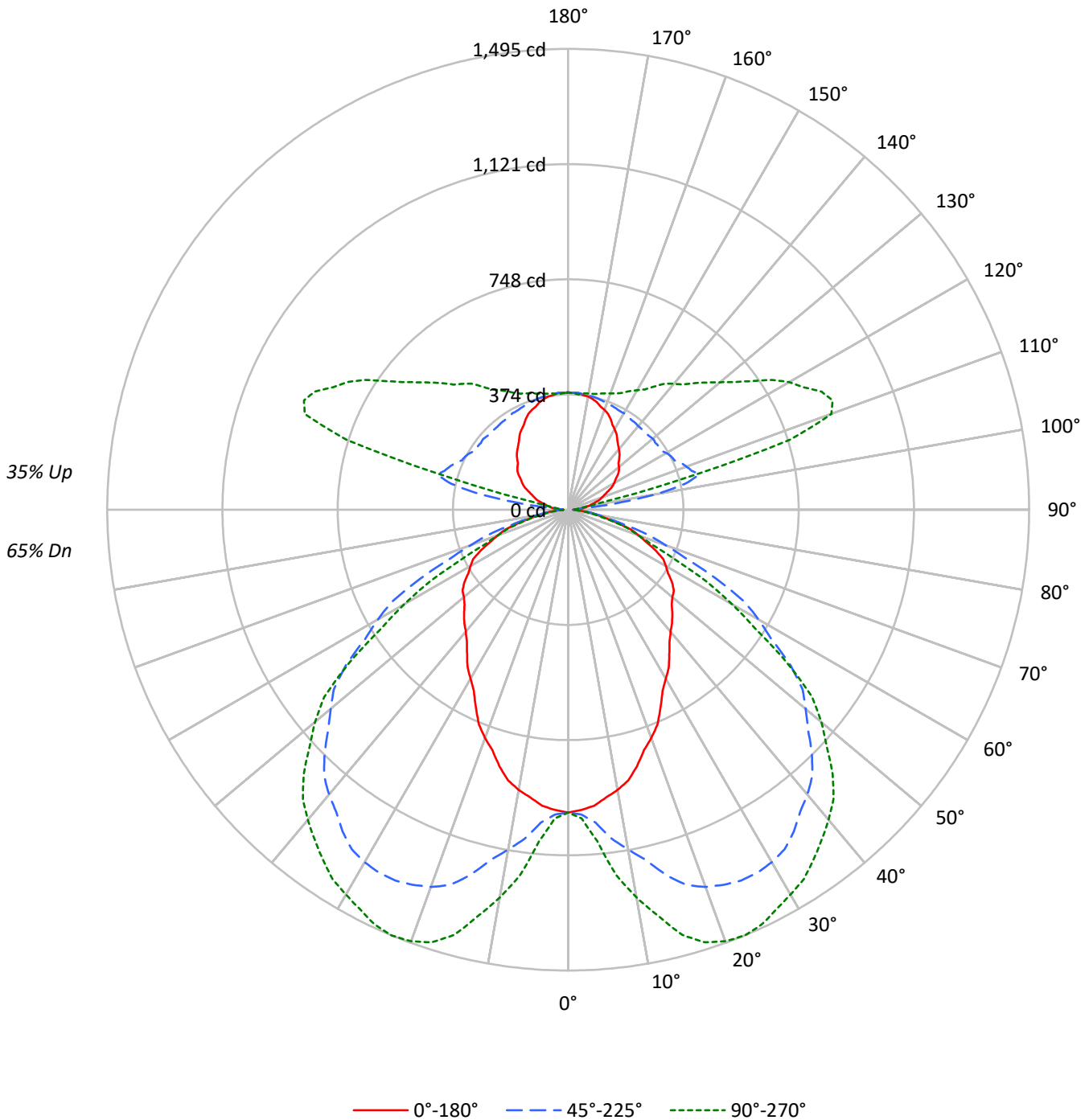
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 5843.0 lumens
Efficiency: N/A
Efficacy: 131.3 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-Direct

Input Watts (W): 44.5
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	111	111	111	111	104	104	104	104	91	91	91	80	80	80	69	69	69	65				
1	101	97	93	89	95	91	88	85	80	78	76	71	69	67	62	60	59	55				
2	92	85	78	73	86	80	74	69	71	66	63	62	59	56	54	52	50	46				
3	84	74	67	61	79	70	63	58	62	57	52	55	51	47	48	45	42	39				
4	77	66	57	51	72	62	55	49	55	49	45	49	44	40	43	39	36	33				
5	70	58	50	44	66	55	48	42	49	43	38	43	39	35	38	34	31	28				
6	65	52	44	38	61	49	42	36	44	38	33	39	34	30	35	30	27	25				
7	60	47	39	33	56	45	37	32	40	34	29	35	30	27	31	27	24	22				
8	55	43	35	29	52	40	33	28	36	30	26	32	27	24	29	24	21	19				
9	52	39	31	26	48	37	30	25	33	27	23	30	25	21	26	22	19	17				
10	48	36	28	23	45	34	27	22	31	25	21	27	22	19	24	20	17	15				

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	15862	15862	15862
5°	15627	16515	17478
10°	15133	18354	20940
15°	14397	20508	23870
20°	13543	22376	25596
25°	12618	23648	26457
30°	11800	24621	26878
35°	11259	25129	27334
40°	10884	25425	27689
45°	10903	25510	27702
50°	11077	25252	26914
55°	11578	24760	24439
60°	11806	23018	19846
65°	11958	20164	14579
70°	11434	15857	11325
75°	10262	11828	9551
80°	8712	9345	7652
85°	8466	7614	6354

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°

Vertical Angle: 45°

Luminance: 27702 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	100.8	1.7
10°-20°	334.8	5.7
20°-30°	556.3	9.5
30°-40°	701.7	12.0
40°-50°	750.2	12.8
50°-60°	662.1	11.3
60°-70°	425.0	7.3
70°-80°	188.4	3.2
80°-90°	49.7	0.9
90°-100°	59.6	1.0
100°-110°	341.3	5.8
110°-120°	458.5	7.8
120°-130°	372.0	6.4
130°-140°	296.4	5.1
140°-150°	233.4	4.0
150°-160°	170.7	2.9
160°-170°	106.0	1.8
170°-180°	36.1	0.6
0°-30°	991.9	17.0
0°-40°	1693.6	29.0
0°-60°	3105.9	53.2
0°-90°	3769.0	64.5
90°-120°	859.4	14.7
90°-150°	1761.3	30.1
90°-180°	2074.0	35.5
0°-180°	5843.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	982	982	982	982	982	
5°	964	993	1019	1054	1078	91
15°	861	993	1227	1374	1428	241
25°	708	961	1327	1452	1485	326
35°	571	877	1275	1358	1387	359
45°	478	750	1117	1186	1213	369
55°	411	590	880	884	868	365
65°	313	396	528	428	382	306
75°	164	182	190	162	153	176
85°	46	39	41	36	34	48
90°	16	18	18	21	16	12
95°	44	52	31	28	31	40
105°	90	128	440	555	366	96
115°	143	169	380	778	906	142
125°	196	222	358	617	727	174
135°	234	260	354	506	581	181
145°	277	301	356	441	488	174
155°	325	337	364	400	418	149
165°	361	366	373	383	390	101
175°	380	382	380	378	375	36
180°	380	380	380	380	380	

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	982.4	982.4	982.4	982.4	982.4
2.5°	975.1	989.4	989.8	995.4	1002.5
5°	964.2	993.2	1019.0	1053.8	1078.4
7.5°	941.3	993.1	1075.7	1156.5	1196.7
10°	923.0	994.5	1119.5	1228.0	1277.2
12.5°	899.3	994.0	1163.4	1294.0	1350.3
15°	861.3	993.2	1226.9	1374.4	1428.0
17.5°	817.5	989.1	1276.7	1424.5	1471.4
20°	788.2	984.8	1302.3	1442.7	1489.7
22.5°	755.3	975.2	1316.9	1451.8	1495.1
25°	708.3	960.7	1327.4	1451.6	1485.1
27.5°	662.1	940.0	1327.9	1433.2	1461.8
30°	632.9	923.3	1320.6	1414.9	1441.7
32.5°	607.3	904.9	1306.0	1393.0	1421.6
35°	571.2	877.2	1274.9	1357.8	1386.8
37.5°	540.1	845.7	1235.6	1316.3	1350.3
40°	516.4	820.2	1206.3	1286.9	1313.7
42.5°	498.1	793.0	1171.6	1250.3	1273.5
45°	477.5	750.1	1117.2	1186.4	1213.2
47.5°	455.6	705.8	1054.6	1119.9	1137.3
50°	441.0	673.3	1005.3	1064.8	1071.5
52.5°	431.8	639.1	957.8	995.3	996.6
55°	411.3	590.0	879.6	883.8	868.2
57.5°	383.8	532.6	780.5	758.1	720.6
60°	365.6	492.9	712.8	668.2	614.6
62.5°	347.3	455.0	641.6	569.3	506.8
65°	313.0	395.7	527.8	428.5	381.6
67.5°	273.3	330.4	414.5	320.5	289.2
70°	242.2	286.9	335.9	262.2	239.9
72.5°	212.9	243.3	271.9	216.8	205.2
75°	164.5	182.4	189.6	162.0	153.1
77.5°	121.1	122.0	131.6	114.1	109.7
80°	93.7	89.2	100.5	86.7	82.3
82.5°	71.7	65.5	73.1	63.0	60.3
85°	45.7	39.0	41.1	36.5	34.3
87.5°	27.0	22.1	22.0	20.6	17.9
90°	16.0	18.3	18.5	20.8	16.3
92.5°	27.2	24.2	22.4	24.8	22.2
95°	44.3	51.7	30.6	28.4	30.9
97.5°	56.3	83.8	149.3	46.0	38.2
100°	66.0	99.0	289.0	87.6	57.3
102.5°	75.6	112.3	388.5	221.9	120.5
105°	90.1	127.6	439.7	555.1	365.9
107.5°	106.9	132.8	420.1	806.9	753.7
110°	116.5	142.4	408.6	847.8	908.7



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	128.0	153.8	397.1	823.9	927.8
115°	142.9	168.8	379.9	777.6	906.3
117.5°	160.2	186.0	375.6	727.4	859.9
120°	171.7	197.5	367.9	689.3	827.4
122.5°	181.3	207.1	356.5	656.5	783.4
125°	195.8	221.5	358.4	616.9	726.9
127.5°	207.3	235.3	356.6	570.5	679.6
130°	215.0	243.1	358.5	538.0	643.2
132.5°	220.9	249.0	354.8	524.2	610.7
135°	234.3	260.1	353.9	506.2	581.1
137.5°	246.3	273.9	353.9	486.4	550.5
140°	255.9	281.6	353.9	474.8	533.2
142.5°	265.4	289.3	355.8	461.3	516.0
145°	277.4	300.8	356.3	441.0	487.8
147.5°	291.7	312.3	359.2	426.5	462.5
150°	301.3	320.0	361.1	416.8	447.2
152.5°	310.9	327.7	361.1	409.0	433.8
155°	325.2	336.9	363.5	399.8	418.5
157.5°	336.7	347.9	366.3	393.9	407.5
160°	344.3	353.7	368.2	390.0	401.7
162.5°	350.1	359.4	370.2	388.0	396.0
165°	361.1	365.7	373.0	382.8	389.8
167.5°	367.3	371.5	375.4	380.3	384.5
170°	373.0	375.4	375.4	380.3	382.6
172.5°	374.9	379.1	377.3	378.3	380.7
175°	380.2	382.5	380.2	377.8	375.4
177.5°	380.2	382.1	380.2	380.2	378.3
180°	380.2	380.2	380.2	380.2	380.2

(END OF REPORT)