

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: P645152

Luminaire Tested: OMN4DIP-SR4F0-75D50U840-CLBOOB-1DUDD-WW

Issue Date: 2/16/2023



Test Information

Test Method: LM-79-2019
Report Number: P645152
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-SR4F0-75D50U840-CLBOOB-1DUDD-WW
Description: NEO-RAY CIRQUE SUSPENDED LED LUMINAIRE
DOWNLIGHT - BATWING LENS - 750 LUMENS PER FOOT
UPLIGHT - BATWING OPTIC - 500 LUMENS PER FOOT
Light Source: 4000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

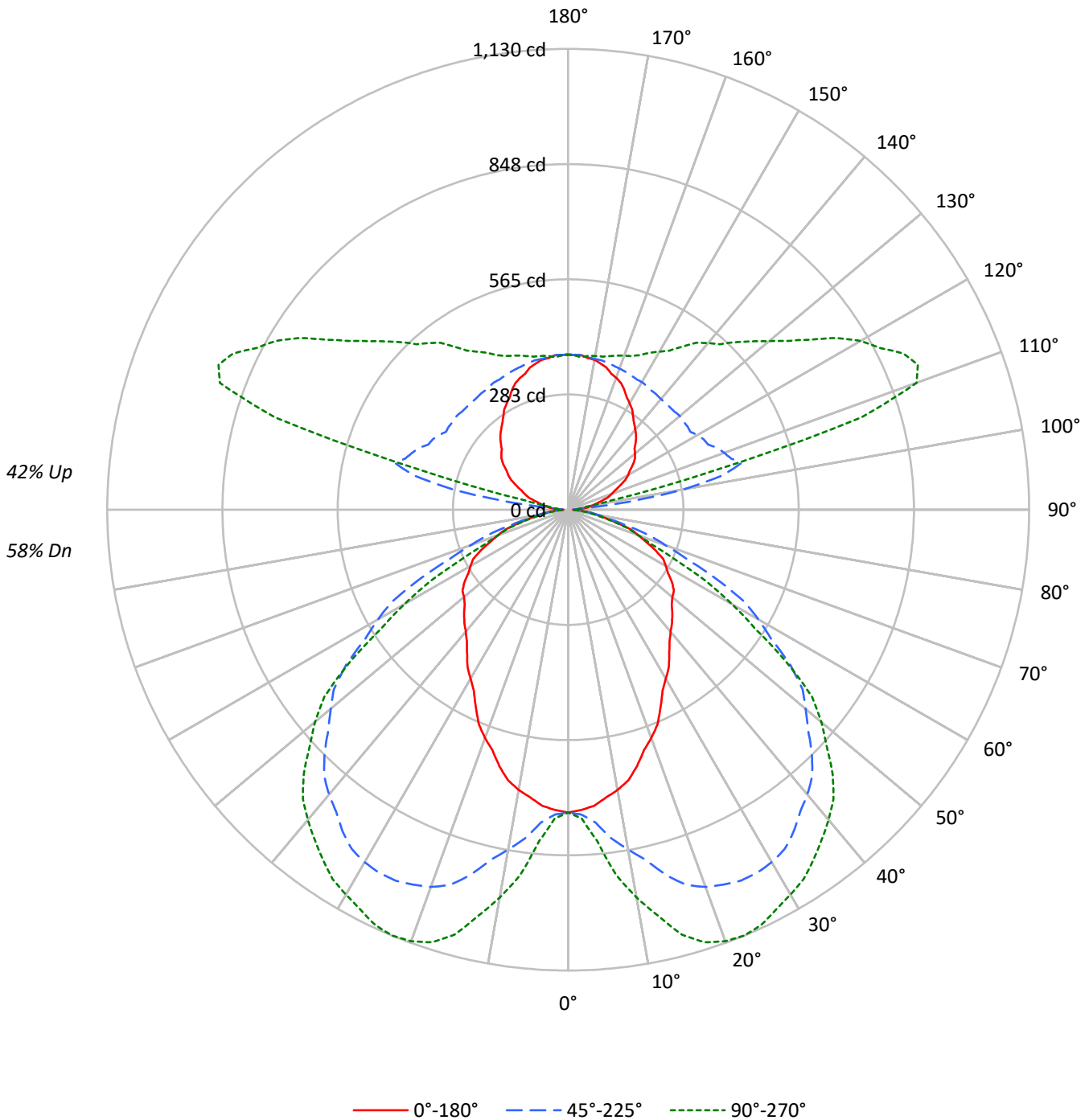
Lumens per Lamp: N/A
Luminaire Lumens: 4915.1 lumens
Efficiency: N/A
Efficacy: 135.0 lumens/watt
Spacing Criteria (0/90/45): 0.99 / 1.87 / 1.75
Luminous Opening: Rectangular (W 0.17' x L: 4' x H: 0')
CIE Type: General Diffuse

Input Watts (W): 36.4
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										
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	109	109	109	109	102	102	102	102	88	88	88	75	75	75	63	63	63	58																				
1	100	95	91	88	93	89	86	83	77	75	72	66	65	63	56	55	54	49																				
2	91	83	77	72	84	78	72	68	68	64	60	58	55	52	50	47	45	41																				
3	83	73	66	60	77	68	62	57	60	54	50	51	47	44	44	41	38	35																				
4	76	65	57	50	70	60	53	48	53	47	43	46	41	38	39	36	33	30																				
5	69	57	49	43	64	54	46	41	47	41	37	41	36	32	35	31	28	25																				
6	64	51	43	37	59	48	41	35	42	36	32	37	32	28	31	28	25	22																				
7	59	46	38	32	55	43	36	31	38	32	28	33	28	25	29	25	22	19																				
8	55	42	34	29	51	39	32	27	35	29	25	30	26	22	26	22	19	17																				
9	51	38	31	25	47	36	29	24	32	26	22	28	23	20	24	20	17	15																				
10	47	35	28	23	44	33	26	22	29	24	20	26	21	18	22	18	16	14																				

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	11988	11988	11988
5°	11810	12483	13211
10°	11437	13872	15826
15°	10882	15500	18041
20°	10237	16912	19345
25°	9536	17874	19996
30°	8917	18608	20314
35°	8509	18993	20660
40°	8226	19218	20927
45°	8241	19281	20936
50°	8372	19085	20343
55°	8749	18714	18472
60°	8922	17399	14999
65°	9039	15240	11018
70°	8639	11981	8559
75°	7754	8939	7218
80°	6583	7066	5783
85°	6391	5761	4798

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 20936 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	76.1	1.5
10°-20°	253.1	5.1
20°-30°	420.4	8.6
30°-40°	530.4	10.8
40°-50°	567.0	11.5
50°-60°	500.4	10.2
60°-70°	321.2	6.5
70°-80°	142.4	2.9
80°-90°	37.8	0.8
90°-100°	56.5	1.1
100°-110°	339.3	6.9
110°-120°	456.9	9.3
120°-130°	371.1	7.5
130°-140°	296.3	6.0
140°-150°	233.4	4.7
150°-160°	170.7	3.5
160°-170°	106.0	2.2
170°-180°	36.1	0.7
0°-30°	749.7	15.3
0°-40°	1280.0	26.0
0°-60°	2347.4	47.8
0°-90°	2848.8	58.0
90°-120°	852.7	17.3
90°-150°	1753.5	35.7
90°-180°	2066.0	42.0
0°-180°	4915.1	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	742	742	742	742	742	
5°	729	751	770	796	815	68
15°	651	751	927	1039	1079	182
25°	535	726	1003	1097	1122	246
35°	432	663	964	1026	1048	271
45°	361	567	844	897	917	279
55°	311	446	665	668	656	276
65°	237	299	399	324	288	231
75°	124	138	143	122	116	133
85°	34	30	31	28	26	37
90°	12	14	15	18	14	9
95°	38	48	28	27	30	36
105°	86	124	438	555	366	92
115°	140	166	378	777	906	140
125°	194	220	357	616	727	173
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°	742.5	742.5	742.5	742.5	742.5
2.5°	737.0	747.8	748.1	752.3	757.7
5°	728.7	750.7	770.2	796.5	815.1
7.5°	711.5	750.6	813.0	874.1	904.5
10°	697.6	751.7	846.1	928.2	965.3
12.5°	679.7	751.3	879.3	978.0	1020.6
15°	651.0	750.6	927.3	1038.7	1079.3
17.5°	617.9	747.5	965.0	1076.6	1112.1
20°	595.8	744.3	984.3	1090.4	1125.9
22.5°	570.9	737.0	995.3	1097.3	1130.0
25°	535.3	726.1	1003.3	1097.1	1122.4
27.5°	500.4	710.5	1003.6	1083.2	1104.8
30°	478.3	697.8	998.1	1069.4	1089.6
32.5°	459.0	683.9	987.1	1052.8	1074.4
35°	431.7	663.0	963.6	1026.2	1048.2
37.5°	408.2	639.2	933.9	994.9	1020.6
40°	390.3	619.9	911.8	972.7	992.9
42.5°	376.4	599.3	885.5	945.0	962.5
45°	360.9	566.9	844.4	896.7	916.9
47.5°	344.3	533.4	797.1	846.4	859.6
50°	333.3	508.9	759.8	804.8	809.9
52.5°	326.4	483.1	723.9	752.2	753.2
55°	310.8	445.9	664.8	668.0	656.2
57.5°	290.1	402.6	589.9	573.0	544.6
60°	276.3	372.5	538.8	505.0	464.5
62.5°	262.5	343.9	484.9	430.3	383.0
65°	236.6	299.0	398.9	323.8	288.4
67.5°	206.5	249.8	313.2	242.3	218.6
70°	183.0	216.8	253.8	198.2	181.3
72.5°	160.9	183.9	205.5	163.8	155.1
75°	124.3	137.8	143.3	122.5	115.7
77.5°	91.5	92.2	99.5	86.3	82.9
80°	70.8	67.4	76.0	65.5	62.2
82.5°	54.2	49.5	55.3	47.6	45.6
85°	34.5	29.5	31.1	27.6	25.9
87.5°	20.4	16.8	16.8	15.9	13.9
90°	12.1	14.4	15.1	17.5	14.1
92.5°	22.0	20.3	19.5	22.4	20.9
95°	38.1	47.7	27.8	26.8	29.8
97.5°	50.9	79.9	147.2	44.9	37.6
100°	61.0	95.7	287.3	86.5	56.7
102.5°	71.1	109.0	386.8	221.2	120.4
105°	86.2	124.3	438.0	554.6	365.9
107.5°	103.1	130.0	418.4	806.4	753.7
110°	113.2	139.6	406.9	847.2	908.7



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	124.7	151.0	395.4	823.3	927.8
115°	140.2	166.5	378.2	777.0	906.3
117.5°	157.5	183.7	373.9	726.9	859.9
120°	169.5	195.2	366.3	688.8	827.4
122.5°	179.1	205.3	355.3	656.0	783.4
125°	194.1	219.8	356.7	616.4	726.9
127.5°	206.2	233.8	355.4	570.1	679.6
130°	213.9	241.9	357.4	538.0	643.2
132.5°	220.7	248.7	354.6	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)