

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: P645092

Luminaire Tested: OMN4DIP-SR4F0-75D150U840-CLBOOB-1DUDD-WW

Issue Date: 2/16/2023



Test Information

Test Method: LM-79-2019
Report Number: P645092
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-SR4F0-75D150U840-CLBOOB-1DUDD-WW
Description: NEO-RAY CIRQUE SUSPENDED LED LUMINAIRE
DOWNLIGHT - BATWING LENS - 750 LUMENS PER FOOT
UPLIGHT - BATWING OPTIC - 1500 LUMENS PER FOOT
Light Source: 4000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

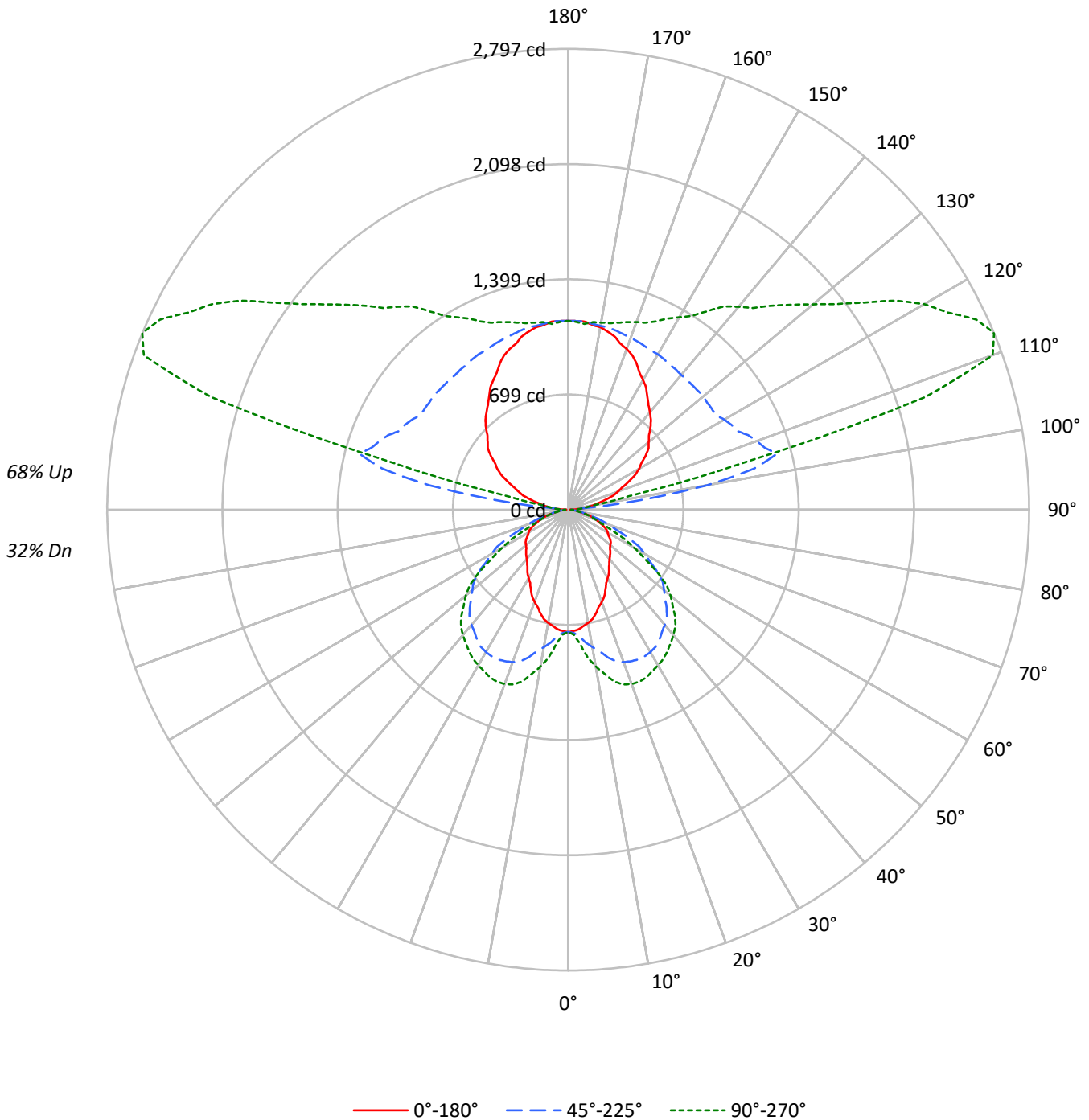
Lumens per Lamp: N/A
Luminaire Lumens: 9032.0 lumens
Efficiency: N/A
Efficacy: 128.3 lumens/watt
Spacing Criteria (0/90/45): 0.99 / 1.87 / 1.75
Luminous Opening: Rectangular (W 0.17' x L: 4' x H: 0')
CIE Type: Semi-Indirect

Input Watts (W): 70.4
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					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	103	103	103	103	92	92	92	92	73	73	73	55	55	55	39	39	39	39	39	39	32	
1	94	90	86	82	84	81	78	75	64	62	60	49	47	46	35	34	33	35	34	33	27	
2	85	78	72	67	76	70	65	61	56	53	50	43	41	39	31	29	28	31	29	28	22	
3	78	69	61	56	70	62	56	51	49	45	42	38	35	32	27	25	24	27	25	24	19	
4	71	60	53	47	64	55	48	43	44	39	35	33	30	28	24	22	20	24	22	20	16	
5	65	54	46	40	58	49	42	37	39	34	30	30	26	24	21	19	17	21	19	17	14	
6	60	48	40	34	53	43	37	32	35	30	26	27	23	21	19	17	15	19	17	15	12	
7	55	43	35	30	49	39	32	27	31	26	23	24	21	18	18	15	13	18	15	13	11	
8	51	39	31	26	46	35	29	24	28	24	20	22	19	16	16	14	12	16	14	12	9	
9	47	35	28	23	42	32	26	21	26	21	18	20	17	14	15	12	11	15	12	11	8	
10	44	32	25	20	40	29	23	19	24	19	16	19	15	13	14	11	10	14	11	10	8	

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	0.8
10°-20°	253.1	2.8
20°-30°	420.4	4.7
30°-40°	530.4	5.9
40°-50°	567.0	6.3
50°-60°	500.4	5.5
60°-70°	321.2	3.6
70°-80°	142.4	1.6
80°-90°	39.5	0.4
90°-100°	150.6	1.7
100°-110°	1010.5	11.2
110°-120°	1368.1	15.1
120°-130°	1112.7	12.3
130°-140°	892.8	9.9
140°-150°	703.6	7.8
150°-160°	514.5	5.7
160°-170°	319.6	3.5
170°-180°	109.0	1.2
0°-30°	749.7	8.3
0°-40°	1280.0	14.2
0°-60°	2347.4	26.0
0°-90°	2850.5	31.6
90°-120°	2529.3	28.0
90°-150°	5238.4	58.0
90°-180°	6181.0	68.4
0°-180°	9032.0	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	19	25	32	28	11
95°	77	119	66	70	83	79
105°	236	354	1310	1669	1103	249
115°	405	488	1130	2339	2732	403
125°	575	652	1065	1855	2192	511
135°	706	784	1067	1526	1752	544
145°	836	907	1074	1330	1471	525
155°	980	1016	1096	1205	1262	450
165°	1089	1103	1125	1154	1175	306
175°	1146	1153	1146	1139	1132	108
180°	1146	1146	1146	1146	1146	



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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	17.7	18.8	18.8	16.8
90°	12.1	19.1	24.8	31.9	28.5
92.5°	33.5	36.5	40.7	52.3	54.6
95°	76.7	119.3	66.3	70.3	82.8
97.5°	119.3	217.1	430.5	128.5	109.9
100°	152.5	267.3	855.9	253.8	167.5
102.5°	185.7	307.5	1155.8	662.8	362.3
105°	235.6	353.7	1310.1	1668.6	1103.0
107.5°	287.1	374.3	1251.0	2427.7	2272.4
110°	320.4	403.3	1216.3	2550.9	2739.5



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	355.0	437.9	1181.7	2478.9	2797.2
115°	405.1	488.0	1129.8	2339.3	2732.3
117.5°	458.2	540.0	1116.9	2188.1	2592.5
120°	497.1	574.7	1093.8	2073.2	2494.4
122.5°	526.0	607.8	1063.6	1974.4	2361.8
125°	574.7	652.3	1065.0	1855.0	2191.6
127.5°	614.8	695.1	1064.7	1716.1	2048.9
130°	637.9	722.5	1070.4	1622.1	1939.3
132.5°	663.9	748.5	1067.7	1580.4	1841.3
135°	706.5	784.1	1067.0	1526.3	1751.9
137.5°	742.6	825.7	1067.0	1466.4	1659.6
140°	771.4	848.9	1067.0	1431.5	1607.7
142.5°	800.2	872.1	1072.7	1390.8	1555.8
145°	836.3	906.8	1074.2	1329.7	1470.7
147.5°	879.5	941.6	1082.8	1285.7	1394.3
150°	908.4	964.8	1088.6	1256.5	1348.1
152.5°	937.2	988.0	1088.6	1233.1	1307.8
155°	980.5	1015.7	1095.8	1205.2	1261.6
157.5°	1015.1	1048.9	1104.5	1187.6	1228.5
160°	1038.1	1066.3	1110.2	1175.9	1211.2
162.5°	1055.4	1083.6	1116.0	1169.9	1193.9
165°	1088.6	1102.7	1124.7	1154.0	1175.1
167.5°	1107.4	1120.0	1131.9	1146.6	1159.3
170°	1124.7	1131.7	1131.9	1146.4	1153.5
172.5°	1130.4	1143.1	1137.6	1140.7	1147.7
175°	1146.3	1153.3	1146.3	1138.9	1131.9
177.5°	1146.3	1151.9	1146.3	1146.2	1140.5
180°	1146.3	1146.3	1146.3	1146.3	1146.3

(END OF REPORT)