

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: P645105

Luminaire Tested: OMN4DIP-SR4F0-75D150U935-FLLOOB-1DUDD-WW

Issue Date: 2/16/2023



**Test Information**

Test Method: LM-79-2019  
Report Number: P645105  
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2203-563-26, G2-2206-689-19)  
Test Lab: INNOVATION CENTER  
Issue Date: 2/16/2023  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: NEO-RAY  
Catalog Number: OMN4DIP-SR4F0-75D150U935-FLLOOB-1DUDD-WW  
Description: NEO-RAY CIRQUE SUSPENDED LED LUMINAIRE  
DOWNLIGHT - FLAT FROSTED LENS - 750 LUMENS PER FOOT  
UPLIGHT - BATWING OPTIC - 1500 LUMENS PER FOOT  
Light Source: 3500K CCT, 90 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

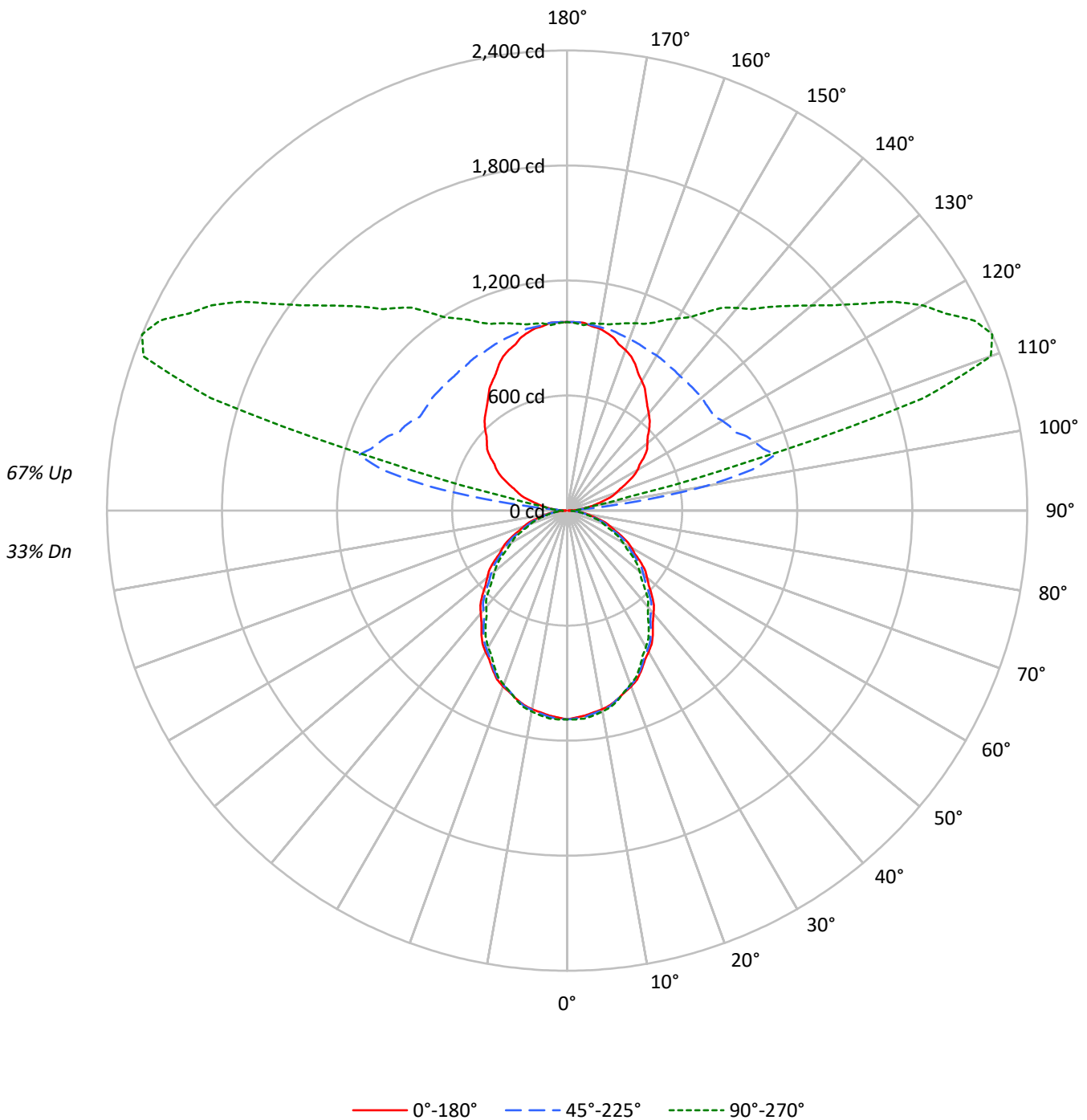
Lumens per Lamp: N/A  
Luminaire Lumens: 7942.3 lumens  
Efficiency: N/A  
Efficacy: 112.8 lumens/watt  
Spacing Criteria (0/90/45): 1.17 / 1.13 / 1.26  
Luminous Opening: Rectangular (W 0.17' x L: 4' x H: 0')  
CIE Type: Semi-Indirect

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	0
RCR																		
0	103	103	103	103	93	93	93	93	74	74	74	57	57	57	41	41	41	33
1	94	90	86	83	85	81	78	75	65	63	61	50	48	47	36	35	34	28
2	86	79	73	68	77	71	66	62	57	53	50	44	42	39	32	30	29	24
3	78	69	62	56	70	62	56	52	50	46	42	39	36	33	28	26	25	20
4	71	61	53	48	64	55	49	44	45	40	36	35	31	29	25	23	21	17
5	66	54	46	41	59	49	43	37	40	35	31	31	28	25	23	21	19	15
6	60	49	41	35	54	44	37	32	36	31	27	28	24	22	21	18	16	13
7	56	44	36	31	50	40	33	28	32	27	24	25	22	19	19	16	15	12
8	52	40	32	27	46	36	30	25	30	25	21	23	20	17	17	15	13	11
9	48	36	29	24	43	33	27	22	27	22	19	21	18	15	16	14	12	10
10	45	33	26	21	40	30	24	20	25	20	17	20	16	14	15	12	11	9

**AVERAGE LUMINANCE (cd/sqm):**

	0°	45°	90°
0°	17584	17584	17584
5°	17387	17507	17627
10°	17247	17321	17443
15°	17016	17016	17115
20°	16778	16651	16600
25°	16340	16208	15996
30°	15856	15636	15333
35°	15362	14982	14633
40°	14773	14334	13835
45°	14278	13737	13061
50°	13659	13064	12393
55°	13140	12470	11721
60°	12536	11867	10863
65°	11889	11037	10189
70°	11264	10211	9512
75°	10536	9339	8871
80°	9642	8545	8126
85°	9059	7966	7410

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 14278 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	102.4	1.3
10°-20°	287.5	3.6
20°-30°	418.0	5.3
30°-40°	475.5	6.0
40°-50°	463.6	5.8
50°-60°	395.7	5.0
60°-70°	287.6	3.6
70°-80°	162.6	2.0
80°-90°	52.3	0.7
90°-100°	127.3	1.6
100°-110°	865.3	10.9
110°-120°	1172.1	14.8
120°-130°	953.4	12.0
130°-140°	766.0	9.6
140°-150°	603.8	7.6
150°-160°	441.5	5.6
160°-170°	274.2	3.5
170°-180°	93.5	1.2
0°-30°	808.0	10.2
0°-40°	1283.5	16.2
0°-60°	2142.8	27.0
0°-90°	2645.4	33.3
90°-120°	2164.6	27.3
90°-150°	4487.8	56.5
90°-180°	5297.0	66.7
0°-180°	7942.3	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1089	1089	1089	1089	1089	
5°	1073	1089	1080	1079	1088	102
15°	1018	1031	1018	1017	1024	287
25°	917	926	910	894	898	422
35°	779	782	760	742	742	487
45°	625	622	602	581	572	481
55°	467	465	443	422	416	417
65°	311	308	289	271	267	309
75°	169	163	150	144	142	179
85°	49	43	43	42	40	52
90°	6	13	21	26	26	8
95°	61	98	54	60	71	64
105°	199	299	1123	1432	946	211
115°	345	416	966	2006	2344	343
125°	492	558	911	1590	1881	437
135°	606	673	916	1310	1503	467
145°	718	778	922	1141	1262	451
155°	841	872	940	1034	1083	386
165°	934	946	965	990	1008	262
175°	984	990	984	977	971	93
180°	984	984	984	984	984	

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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1089.1	1089.1	1089.1	1089.1	1089.1
2.5°	1079.6	1093.5	1085.5	1085.6	1090.3
5°	1072.8	1088.7	1080.2	1078.9	1087.6
7.5°	1061.5	1077.2	1067.2	1065.6	1076.9
10°	1052.0	1066.5	1056.5	1053.8	1063.9
12.5°	1039.0	1053.5	1043.5	1039.5	1049.7
15°	1018.0	1031.0	1018.0	1016.6	1023.9
17.5°	994.3	1005.6	990.4	985.5	991.0
20°	976.5	986.6	969.1	961.8	966.1
22.5°	954.0	964.1	945.4	934.5	940.0
25°	917.2	925.9	909.8	893.6	897.9
27.5°	877.8	884.5	868.3	851.7	853.2
30°	850.5	854.9	838.7	820.9	822.4
32.5°	822.1	825.3	807.9	788.9	789.2
35°	779.4	782.3	760.1	742.4	742.4
37.5°	734.1	735.8	712.1	692.8	690.8
40°	700.9	703.8	680.1	660.8	656.4
42.5°	670.0	670.6	649.3	629.9	624.4
45°	625.3	622.4	601.6	580.6	572.0
47.5°	577.0	577.0	553.3	532.4	524.2
50°	543.8	543.8	520.1	499.2	493.4
52.5°	513.0	511.8	489.3	468.3	460.2
55°	466.8	465.3	443.0	422.2	416.4
57.5°	417.9	417.9	397.1	374.7	368.4
60°	388.2	388.2	367.5	345.1	336.4
62.5°	356.2	355.1	334.3	314.3	309.1
65°	311.2	308.3	288.9	271.1	266.7
67.5°	268.2	265.3	244.8	230.5	227.6
70°	238.6	235.7	216.3	204.4	201.5
72.5°	210.1	206.1	189.1	179.5	176.6
75°	168.9	163.1	149.7	143.7	142.2
77.5°	129.8	119.9	114.4	110.2	108.8
80°	103.7	95.0	91.9	88.9	87.4
82.5°	81.2	72.5	71.7	69.9	68.5
85°	48.9	43.1	43.0	41.5	40.0
87.5°	21.3	19.4	20.8	21.8	21.8
90°	5.9	13.4	21.3	26.0	26.0
92.5°	25.5	28.4	33.7	44.7	48.3
95°	61.3	97.9	53.9	60.4	71.0
97.5°	98.2	182.2	367.9	109.9	94.3
100°	127.9	226.4	732.9	216.3	143.8
102.5°	156.4	259.7	990.3	568.5	310.8
105°	199.2	299.1	1122.7	1431.8	946.5
107.5°	243.4	318.2	1071.9	2083.2	1949.9
110°	271.9	343.1	1042.2	2188.9	2350.7



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**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°
112.5°	301.6	372.8	1012.5	2127.1	2400.2
115°	344.7	415.8	966.5	2005.8	2344.5
117.5°	390.5	460.4	955.4	1876.1	2224.5
120°	425.1	490.2	935.6	1777.5	2140.4
122.5°	448.7	519.7	910.8	1692.7	2026.6
125°	491.7	558.2	910.8	1590.2	1880.6
127.5°	526.1	595.0	912.1	1471.4	1758.1
130°	545.9	618.4	917.0	1391.9	1664.1
132.5°	569.4	642.0	915.8	1356.1	1579.9
135°	606.2	672.8	915.5	1309.7	1503.2
137.5°	637.2	708.5	915.5	1258.3	1424.0
140°	661.9	728.5	915.5	1228.3	1379.5
142.5°	686.7	748.4	920.5	1193.4	1335.0
145°	717.6	778.1	921.7	1141.0	1262.0
147.5°	754.7	807.9	929.2	1103.2	1196.4
150°	779.5	827.8	934.1	1078.2	1156.8
152.5°	804.2	847.7	934.1	1058.0	1122.2
155°	841.3	871.6	940.3	1034.2	1082.6
157.5°	871.0	900.0	947.7	1019.0	1054.1
160°	890.8	915.0	952.7	1009.0	1039.3
162.5°	905.7	929.8	957.6	1003.9	1024.4
165°	934.1	946.2	965.0	990.2	1008.3
167.5°	950.2	961.1	971.2	983.8	994.7
170°	965.0	971.1	971.2	983.7	989.8
172.5°	970.0	980.9	976.2	978.8	984.8
175°	983.6	989.6	983.6	977.3	971.2
177.5°	983.6	988.4	983.6	983.5	978.6
180°	983.6	983.6	983.6	983.6	983.6

(END OF REPORT)