

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: P645077

Luminaire Tested: OMN4DIP-SR4F0-75D125U940-BBMOOB-1DUDD-WW

Issue Date: 9/2/2020



**Test Information**

Test Method: LM-79-2019  
Report Number: P645077  
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2203-563-26, G2-2206-689-23)  
Test Lab: INNOVATION CENTER  
Issue Date: 9/2/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: NEO-RAY  
Catalog Number: OMN4DIP-SR4F0-75D125U940-BBMOOB-1DUDD-WW  
Description: NEO-RAY CIRQUE 4-INCH DIAMETER LINEAR LED LUMINAIRE  
DOWNLIGHT - BLACK BAFFLE WITH MEDIUM OPTIC - 750 LUMENS PER FOOT  
UPLIGHT - BATWING OPTIC - 1250 LUMENS PER FOOT  
Light Source: 4000K CCT, 90 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

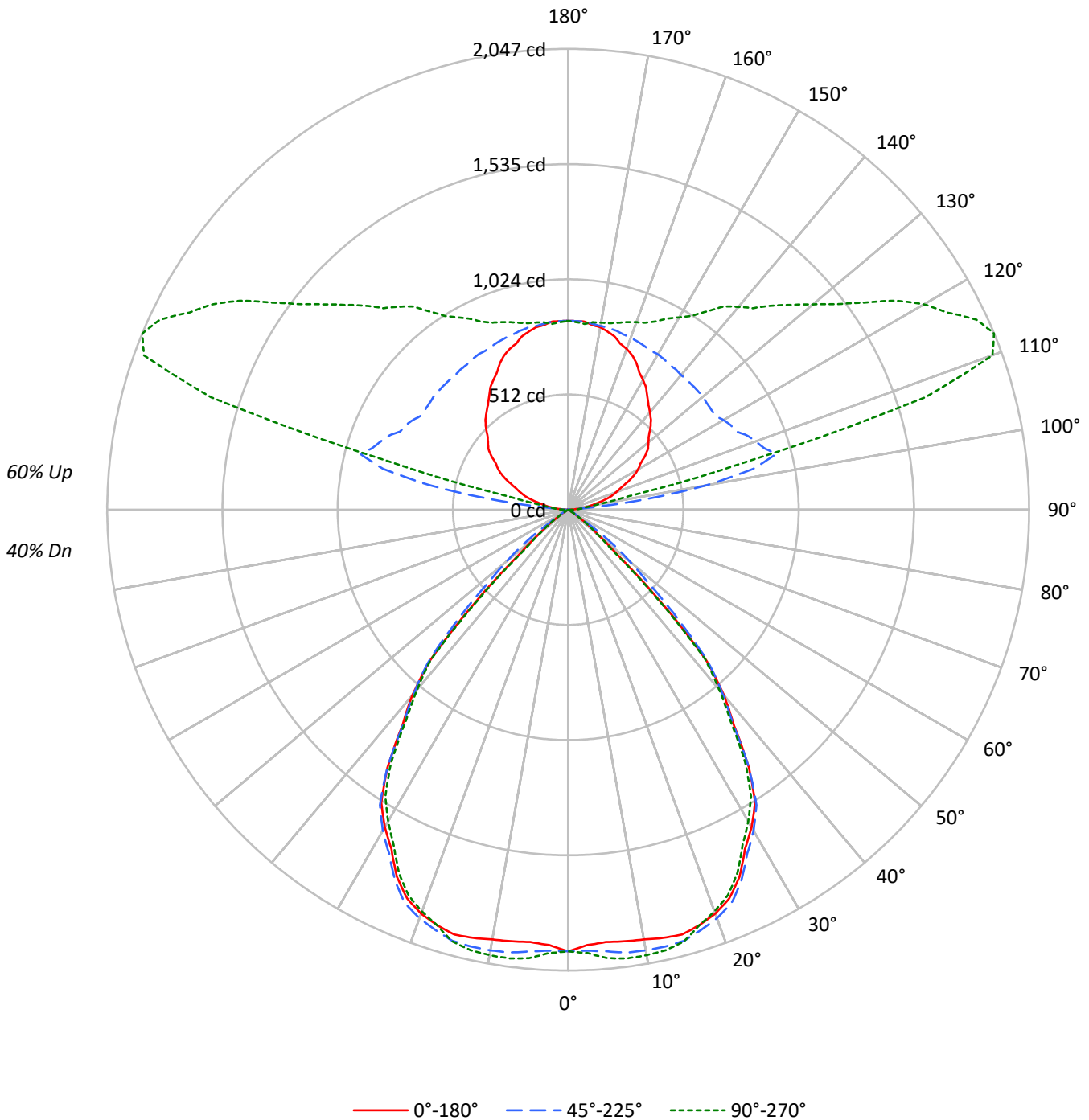
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 7520.1 lumens  
Efficiency: N/A  
Efficacy: 113.8 lumens/watt  
Spacing Criteria (0/90/45): 1.22 / 1.21 / 1.18  
Luminous Opening: Rectangular (W 0.21' x L: 4' x H: 0')  
CIE Type: General Diffuse  
  
Input Watts (W): 66.1  
Input Voltage (V): 120  
Input Current (A<sub>in</sub>): 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									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	105	105	105	105	95	95	95	95	78	78	78	62	62	62	47	47	47	40																			
1	97	93	90	87	88	85	83	80	70	69	67	57	56	54	44	43	43	37																			
2	90	84	78	74	82	77	72	69	64	61	58	52	50	48	41	40	39	34																			
3	83	75	69	64	76	69	64	59	58	54	51	47	45	43	38	36	35	31																			
4	77	67	61	55	70	62	56	52	52	48	45	43	40	38	35	33	32	28																			
5	71	61	54	49	65	56	50	46	48	43	40	40	37	34	32	30	29	25																			
6	66	55	48	43	60	51	45	41	44	39	36	37	33	31	30	28	26	23																			
7	61	50	43	38	56	47	41	36	40	35	32	34	30	28	28	25	24	21																			
8	57	46	39	34	53	43	37	33	37	32	29	31	28	25	26	23	22	19																			
9	53	42	36	31	49	40	34	29	34	29	26	29	26	23	24	22	20	18																			
10	50	39	32	28	46	36	31	27	32	27	24	27	24	21	22	20	18	17																			

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

	0°	45°	90°
0°	25336	25336	25336
5°	24996	25533	25930
10°	25425	26068	26350
15°	26127	26516	26558
20°	26246	26542	26099
25°	25642	25926	25359
30°	24277	24551	23843
35°	22068	22068	21611
40°	18151	17969	17583
45°	10852	12754	10350
50°	3509	7108	3292
55°	1241	2380	1241
60°	80	672	39
65°	46	46	0
70°	57	0	0
75°	0	0	0
80°	0	0	0
85°	222	0	0

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 45°  
 Vertical Angle: 45°  
 Luminance: 12754 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	188.7	2.5
10°-20°	558.4	7.4
20°-30°	826.3	11.0
30°-40°	854.1	11.4
40°-50°	497.0	6.6
50°-60°	84.2	1.1
60°-70°	3.3	0.0
70°-80°	0.5	0.0
80°-90°	2.3	0.0
90°-100°	103.1	1.4
100°-110°	734.8	9.8
110°-120°	997.6	13.3
120°-130°	811.9	10.8
130°-140°	653.0	8.7
140°-150°	514.8	6.8
150°-160°	376.4	5.0
160°-170°	233.8	3.1
170°-180°	79.7	1.1
0°-30°	1573.4	20.9
0°-40°	2427.5	32.3
0°-60°	3008.7	40.0
0°-90°	3014.8	40.1
90°-120°	1835.5	24.4
90°-150°	3815.3	50.7
90°-180°	4505.0	59.9
0°-180°	7520.1	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1962	1962	1962	1962	1962	
5°	1928	1979	1969	1974	2000	185
15°	1954	2023	1983	1972	1986	550
25°	1799	1859	1819	1764	1779	822
35°	1400	1422	1400	1364	1370	857
45°	594	691	698	674	567	459
55°	55	64	106	60	55	61
65°	2	2	2	0	0	2
75°	0	2	0	0	0	1
85°	2	2	0	0	0	1
90°	0	5	10	16	16	2
95°	42	78	42	48	58	47
105°	164	251	955	1220	807	172
115°	290	352	823	1710	1999	288
125°	417	473	775	1356	1604	370
135°	517	574	781	1117	1282	398
145°	612	664	786	973	1076	384
155°	717	743	802	882	923	329
165°	796	807	823	844	860	224
175°	839	844	839	833	828	79
180°	839	839	839	839	839	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1961.5	1961.5	1961.5	1961.5	1961.5
2.5°	1935.8	1974.1	1960.3	1961.7	1971.3
5°	1927.8	1978.7	1969.2	1974.3	1999.8
7.5°	1933.6	1985.1	1983.9	1985.3	2010.2
10°	1938.5	1992.4	1987.5	1986.5	2009.0
12.5°	1948.3	2007.0	1987.5	1985.2	2004.1
15°	1953.8	2022.7	1982.9	1972.5	1986.0
17.5°	1935.2	2011.8	1957.8	1930.1	1935.5
20°	1909.4	1987.3	1930.9	1889.7	1898.7
22.5°	1869.0	1943.3	1892.9	1842.0	1853.4
25°	1799.2	1859.1	1819.1	1764.3	1779.3
27.5°	1700.0	1747.3	1722.0	1668.9	1678.2
30°	1627.7	1666.6	1646.1	1594.1	1598.6
32.5°	1544.4	1577.3	1555.4	1510.7	1510.4
35°	1399.5	1422.0	1399.5	1364.5	1370.5
37.5°	1210.0	1227.0	1204.2	1183.1	1186.1
40°	1076.5	1089.9	1065.7	1045.8	1042.8
42.5°	909.9	947.3	923.6	896.5	900.7
45°	594.1	691.4	698.2	674.4	566.6
47.5°	299.5	405.8	486.0	368.8	264.3
50°	174.6	238.9	353.7	195.3	163.8
52.5°	114.5	141.8	247.1	123.4	108.7
55°	55.1	64.1	105.7	59.6	55.1
57.5°	19.0	29.2	46.9	29.8	21.1
60°	3.1	12.0	26.0	9.0	1.5
62.5°	1.8	3.6	16.2	1.8	0.3
65°	1.5	1.5	1.5	0.0	0.0
67.5°	1.5	1.5	0.0	0.0	0.0
70°	1.5	1.5	0.0	0.0	0.0
72.5°	1.5	1.5	0.0	0.0	0.0
75°	0.0	1.5	0.0	0.0	0.0
77.5°	0.0	1.5	0.0	0.0	0.0
80°	0.0	1.5	0.0	0.0	0.0
82.5°	0.0	1.5	0.0	0.0	0.0
85°	1.5	1.5	0.0	0.0	0.0
87.5°	1.2	2.3	2.1	3.2	3.2
90°	0.0	5.2	10.5	15.8	15.8
92.5°	12.7	17.8	23.2	32.8	36.9
95°	42.2	78.3	42.2	47.7	58.0
97.5°	74.9	150.2	310.2	91.5	79.1
100°	100.2	187.9	622.4	183.2	121.3
102.5°	125.5	217.3	841.9	483.5	264.8
105°	163.5	251.2	954.8	1219.7	807.1
107.5°	201.5	267.5	911.5	1775.1	1662.6
110°	226.8	288.7	886.2	1865.2	2004.5



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**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°
112.5°	252.1	314.0	860.9	1812.5	2046.7
115°	290.1	352.0	822.9	1710.4	1999.2
117.5°	329.2	390.0	813.4	1599.8	1896.8
120°	358.7	415.4	796.5	1515.6	1825.1
122.5°	379.8	440.7	775.4	1443.3	1728.1
125°	416.7	473.4	775.4	1356.0	1603.6
127.5°	447.3	505.1	776.5	1254.6	1499.1
130°	464.2	526.1	780.7	1186.8	1418.9
132.5°	485.3	547.2	780.7	1156.4	1347.2
135°	516.9	573.7	780.7	1116.8	1281.8
137.5°	543.3	604.2	780.7	1073.0	1214.3
140°	564.4	621.1	780.7	1047.4	1176.3
142.5°	585.5	638.1	784.9	1017.6	1138.3
145°	611.9	663.5	786.0	972.9	1076.1
147.5°	643.5	688.9	792.3	940.7	1020.2
150°	664.6	705.9	796.5	919.4	986.4
152.5°	685.7	722.9	796.5	902.2	956.9
155°	717.4	743.2	801.8	881.8	923.1
157.5°	742.7	767.5	808.1	868.9	898.8
160°	759.6	780.2	812.3	860.4	886.2
162.5°	772.2	792.9	816.6	856.0	873.5
165°	796.5	806.8	822.9	844.3	859.8
167.5°	810.2	819.5	828.2	838.9	848.2
170°	822.9	828.0	828.2	838.8	844.0
172.5°	827.1	836.4	832.4	834.6	839.8
175°	838.7	843.9	838.7	833.3	828.2
177.5°	838.7	842.8	838.7	838.6	834.5
180°	838.7	838.7	838.7	838.7	838.7

(END OF REPORT)