

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: P645082

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

Issue Date: 9/2/2020



**Test Information**

Test Method: LM-79-2019  
Report Number: P645082  
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2203-563-26, G2-2206-689-27)  
Test Lab: INNOVATION CENTER  
Issue Date: 9/2/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: NEO-RAY  
Catalog Number: OMN4DIP-SR4F0-75D125U940-WBMOOB-1DUDD-WW  
Description: NEO-RAY CIRQUE 4-INCH DIAMETER LINEAR LED LUMINAIRE  
DOWNLIGHT - WHITE 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

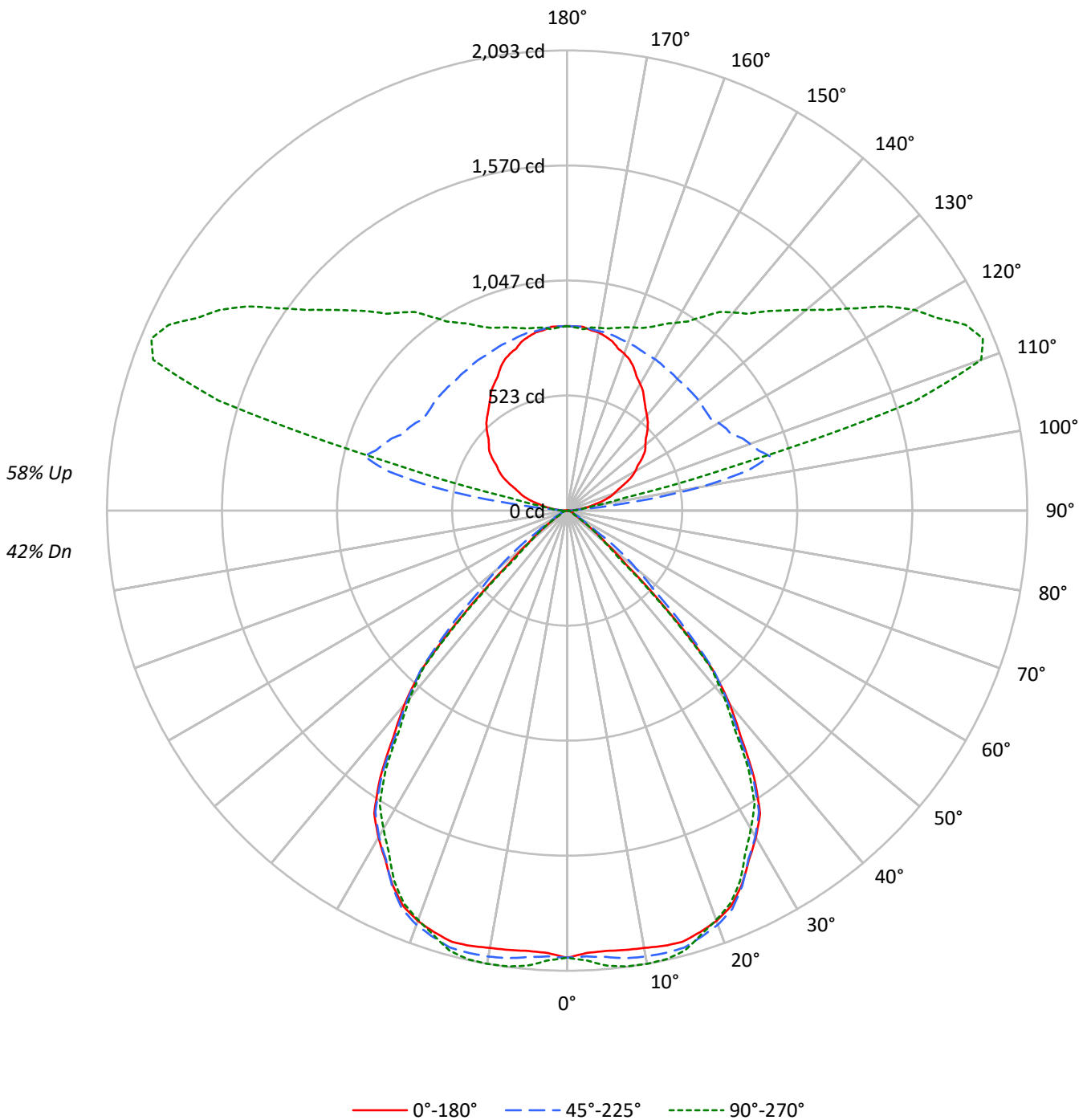
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 7777.0 lumens  
Efficiency: N/A  
Efficacy: 117.7 lumens/watt  
Spacing Criteria (0/90/45): 1.24 / 1.21 / 1.19  
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									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	105	105	105	105	96	96	96	96	79	79	79	63	63	63	49	49	49	42																				
1	97	94	91	88	89	86	83	81	71	69	68	58	57	56	45	45	44	38																				
2	90	84	79	74	82	77	73	69	64	61	59	53	51	49	42	41	40	35																				
3	83	75	69	64	76	69	64	59	58	54	51	48	46	43	39	37	36	31																				
4	77	68	61	55	70	62	57	52	53	49	45	44	41	39	36	34	32	28																				
5	71	61	54	49	65	57	50	46	48	44	40	40	37	34	33	31	29	26																				
6	66	55	48	43	61	51	45	40	44	39	36	37	34	31	31	28	26	24																				
7	61	50	43	38	56	47	41	36	40	36	32	34	31	28	28	26	24	22																				
8	57	46	39	34	53	43	37	32	37	32	29	32	28	25	26	24	22	20																				
9	54	42	36	31	49	40	33	29	34	30	26	29	26	23	24	22	20	18																				
10	50	39	32	28	46	37	31	27	32	27	24	27	24	21	23	20	19	17																				

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

	0°	45°	90°
0°	26266	26266	26266
5°	26068	26426	26942
10°	26490	27012	27454
15°	27151	27520	27705
20°	27299	27552	27236
25°	26777	26842	26514
30°	25601	25533	24917
35°	23372	23180	22697
40°	19416	19131	18770
45°	12195	13874	11636
50°	4676	8215	4338
55°	2207	3448	2241
60°	1067	1741	948
65°	984	1030	889
70°	982	982	869
75°	993	993	838
80°	1027	907	796
85°	1141	904	682

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 45°  
 Vertical Angle: 45°  
 Luminance: 13874 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	195.9	2.5
10°-20°	579.3	7.4
20°-30°	860.6	11.1
30°-40°	900.7	11.6
40°-50°	545.6	7.0
50°-60°	125.9	1.6
60°-70°	34.6	0.4
70°-80°	20.3	0.3
80°-90°	8.9	0.1
90°-100°	103.1	1.3
100°-110°	734.8	9.4
110°-120°	997.6	12.8
120°-130°	811.9	10.4
130°-140°	653.0	8.4
140°-150°	514.8	6.6
150°-160°	376.4	4.8
160°-170°	233.8	3.0
170°-180°	79.7	1.0
0°-30°	1635.8	21.0
0°-40°	2536.5	32.6
0°-60°	3207.9	41.2
0°-90°	3271.7	42.1
90°-120°	1835.5	23.6
90°-150°	3815.3	49.1
90°-180°	4505.0	57.9
0°-180°	7777.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	2034	2034	2034	2034	2034	
5°	2010	2057	2038	2046	2078	192
15°	2030	2092	2058	2042	2072	572
25°	1879	1934	1883	1835	1860	860
35°	1482	1505	1470	1436	1439	911
45°	668	759	760	733	637	513
55°	98	112	153	106	100	102
65°	32	34	34	31	29	32
75°	20	20	20	18	17	21
85°	8	8	6	6	5	8
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°	2033.5	2033.5	2033.5	2033.5	2033.5
2.5°	2013.9	2049.8	2029.8	2031.4	2048.2
5°	2010.5	2056.9	2038.1	2046.4	2077.9
7.5°	2016.0	2064.5	2053.4	2056.3	2090.7
10°	2019.7	2070.6	2059.5	2058.8	2093.2
12.5°	2028.3	2081.6	2060.7	2056.3	2089.5
15°	2030.4	2091.8	2058.0	2041.8	2071.8
17.5°	2010.5	2078.2	2032.6	1999.1	2023.1
20°	1986.0	2054.9	2004.4	1957.5	1981.4
22.5°	1948.0	2015.7	1961.5	1910.9	1936.1
25°	1878.8	1934.2	1883.4	1835.0	1860.4
27.5°	1791.2	1830.2	1786.6	1740.7	1755.1
30°	1716.5	1755.4	1711.9	1664.6	1670.6
32.5°	1633.2	1666.1	1623.7	1581.3	1586.0
35°	1482.2	1504.7	1470.0	1436.4	1439.4
37.5°	1298.5	1301.5	1278.0	1247.4	1248.0
40°	1151.5	1160.5	1134.6	1110.2	1113.2
42.5°	976.3	1011.6	986.4	964.4	965.0
45°	667.6	758.9	759.5	732.8	637.0
47.5°	368.7	474.4	542.4	420.6	317.6
50°	232.7	300.1	408.8	245.8	215.9
52.5°	166.6	196.8	298.6	173.9	158.3
55°	98.0	111.5	153.1	105.5	99.5
57.5°	59.7	71.4	89.4	70.5	60.0
60°	41.3	51.8	67.4	47.2	36.7
62.5°	36.4	39.7	52.7	37.6	34.3
65°	32.2	33.7	33.7	30.6	29.1
67.5°	28.5	30.0	28.5	26.9	25.4
70°	26.0	27.5	26.0	24.5	23.0
72.5°	23.6	25.1	23.6	22.0	20.5
75°	19.9	19.9	19.9	18.3	16.8
77.5°	16.2	16.2	15.9	14.7	13.2
80°	13.8	13.8	12.2	12.2	10.7
82.5°	11.3	11.3	9.8	9.8	8.3
85°	7.7	7.7	6.1	6.1	4.6
87.5°	3.7	4.7	4.6	5.6	4.4
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)