

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: P645076

Luminaire Tested: OMN4DIP-SR4F0-75D125U935-WBMOOB-1DUDD-WW

Issue Date: 9/2/2020



Test Information

Test Method: LM-79-2019
Report Number: P645076
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-SR4F0-75D125U935-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: 3500K CCT, 90 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

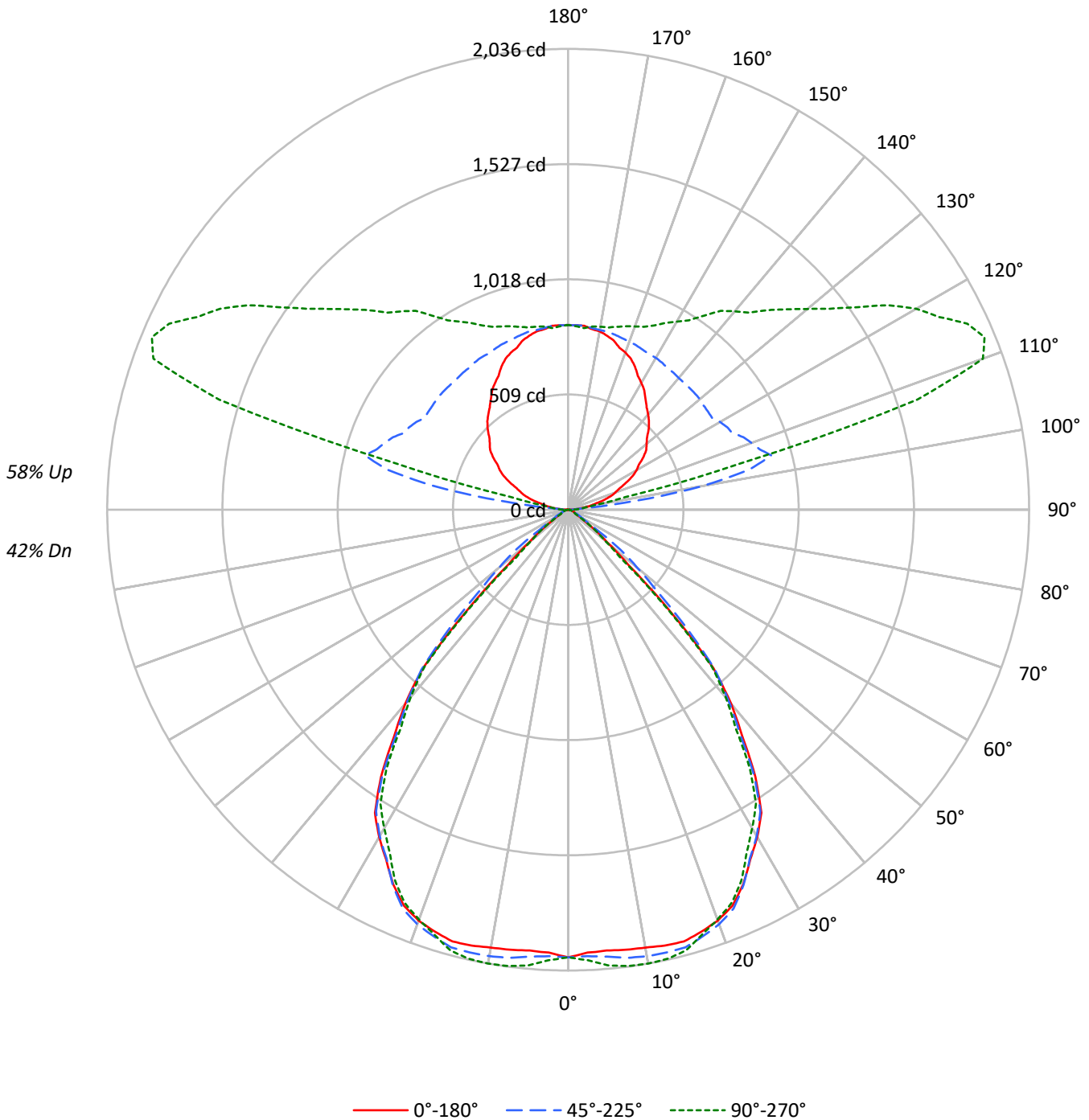
Lumens per Lamp: N/A
Luminaire Lumens: 7563.4 lumens
Efficiency: N/A
Efficacy: 114.4 lumens/watt
Spacing Criteria (0/90/45): 1.24 / 1.21 / 1.19
Luminous Opening: Rectangular (W 0.21' x L: 4' x H: 0')
CIE Type: General Diffuse

Input Watts (W): 66.1
Input Voltage (V): 120
Input Current (A_{in}): 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°	25544	25544	25544
5°	25353	25700	26202
10°	25762	26270	26700
15°	26405	26765	26944
20°	26550	26794	26488
25°	26041	26105	25786
30°	24899	24832	24232
35°	22730	22543	22073
40°	18883	18607	18254
45°	11861	13492	11316
50°	4549	7990	4220
55°	2146	3353	2180
60°	1039	1692	922
65°	957	1002	865
70°	955	955	842
75°	968	968	818
80°	997	885	774
85°	1097	889	667

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 45°
 Vertical Angle: 45°
 Luminance: 13492 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	190.5	2.5
10°-20°	563.4	7.4
20°-30°	836.9	11.1
30°-40°	876.0	11.6
40°-50°	530.6	7.0
50°-60°	122.4	1.6
60°-70°	33.6	0.4
70°-80°	19.7	0.3
80°-90°	8.6	0.1
90°-100°	100.3	1.3
100°-110°	714.6	9.4
110°-120°	970.2	12.8
120°-130°	789.6	10.4
130°-140°	635.1	8.4
140°-150°	500.7	6.6
150°-160°	366.1	4.8
160°-170°	227.4	3.0
170°-180°	77.5	1.0
0°-30°	1590.8	21.0
0°-40°	2466.8	32.6
0°-60°	3119.8	41.2
0°-90°	3181.8	42.1
90°-120°	1785.1	23.6
90°-150°	3710.5	49.1
90°-180°	4382.0	57.9
0°-180°	7563.4	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1978	1978	1978	1978	1978	
5°	1955	2000	1982	1990	2021	187
15°	1975	2034	2002	1986	2015	556
25°	1827	1881	1832	1785	1809	837
35°	1442	1463	1430	1397	1400	886
45°	649	738	739	713	620	499
55°	95	108	149	103	97	99
65°	31	33	33	30	28	31
75°	19	19	19	18	16	20
85°	7	7	6	6	4	7
90°	0	5	10	15	15	2
95°	41	76	41	46	56	46
105°	159	244	928	1186	785	168
115°	282	342	800	1663	1944	280
125°	405	460	754	1319	1560	360
135°	503	558	759	1086	1247	387
145°	595	645	764	946	1046	374
155°	698	723	780	858	898	320
165°	775	785	800	821	836	218
175°	816	821	816	810	805	77
180°	816	816	816	816	816	

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1977.6	1977.6	1977.6	1977.6	1977.6
2.5°	1958.6	1993.5	1974.0	1975.6	1991.9
5°	1955.3	2000.4	1982.1	1990.2	2020.8
7.5°	1960.6	2007.8	1997.0	1999.8	2033.3
10°	1964.2	2013.7	2002.9	2002.2	2035.7
12.5°	1972.6	2024.4	2004.1	1999.8	2032.1
15°	1974.6	2034.3	2001.5	1985.7	2014.9
17.5°	1955.3	2021.1	1976.7	1944.2	1967.5
20°	1931.5	1998.4	1949.3	1903.7	1927.0
22.5°	1894.5	1960.3	1907.6	1858.4	1882.9
25°	1827.2	1881.1	1831.7	1784.6	1809.3
27.5°	1742.0	1779.9	1737.6	1692.9	1706.9
30°	1669.4	1707.2	1664.9	1618.9	1624.7
32.5°	1588.4	1620.4	1579.1	1537.8	1542.5
35°	1441.5	1463.4	1429.6	1396.9	1399.8
37.5°	1262.8	1265.7	1242.9	1213.1	1213.7
40°	1119.9	1128.6	1103.5	1079.7	1082.6
42.5°	949.5	983.9	959.3	937.9	938.5
45°	649.3	738.1	738.6	712.7	619.5
47.5°	358.6	461.4	527.5	409.0	308.9
50°	226.4	291.9	397.6	239.1	210.0
52.5°	162.0	191.4	290.4	169.1	154.0
55°	95.3	108.4	148.9	102.6	96.8
57.5°	58.1	69.4	87.0	68.6	58.4
60°	40.2	50.4	65.5	45.9	35.7
62.5°	35.4	38.6	51.2	36.6	33.4
65°	31.3	32.7	32.8	29.8	28.3
67.5°	27.7	29.2	27.7	26.2	24.7
70°	25.3	26.8	25.3	23.8	22.3
72.5°	22.9	24.4	22.9	21.4	20.0
75°	19.4	19.4	19.4	17.8	16.4
77.5°	15.8	15.8	15.5	14.3	12.8
80°	13.4	13.4	11.9	11.9	10.4
82.5°	11.0	11.0	9.5	9.5	8.0
85°	7.4	7.4	6.0	5.9	4.5
87.5°	3.6	4.6	4.4	5.4	4.3
90°	0.0	5.0	10.3	15.4	15.4
92.5°	12.3	17.3	22.6	31.9	35.9
95°	41.0	76.2	41.0	46.4	56.4
97.5°	72.8	146.1	301.6	89.0	77.0
100°	97.5	182.7	605.3	178.2	118.0
102.5°	122.1	211.4	818.7	470.2	257.5
105°	159.0	244.3	928.5	1186.2	784.9
107.5°	196.0	260.2	886.5	1726.3	1617.0
110°	220.6	280.8	861.8	1814.0	1949.4



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	245.2	305.4	837.2	1762.7	1990.4
115°	282.2	342.3	800.3	1663.4	1944.3
117.5°	320.1	379.3	791.0	1555.8	1844.8
120°	348.8	404.0	774.6	1474.0	1775.0
122.5°	369.4	428.5	754.1	1403.7	1680.6
125°	405.3	460.4	754.1	1318.8	1559.5
127.5°	435.0	491.2	755.1	1220.2	1457.9
130°	451.4	511.6	759.2	1154.3	1380.0
132.5°	472.0	532.2	759.2	1124.6	1310.2
135°	502.7	557.9	759.2	1086.1	1246.6
137.5°	528.4	587.6	759.2	1043.5	1180.9
140°	548.9	604.1	759.2	1018.6	1144.0
142.5°	569.4	620.6	763.3	989.7	1107.1
145°	595.1	645.2	764.4	946.2	1046.5
147.5°	625.9	670.0	770.5	914.9	992.1
150°	646.4	686.5	774.6	894.1	959.3
152.5°	666.9	703.0	774.6	877.4	930.6
155°	697.7	722.8	779.8	857.6	897.8
157.5°	722.3	746.4	785.9	845.1	874.2
160°	738.7	758.8	790.0	836.8	861.8
162.5°	751.0	771.1	794.1	832.5	849.5
165°	774.6	784.7	800.3	821.1	836.2
167.5°	788.0	797.0	805.4	815.9	824.9
170°	800.3	805.3	805.4	815.8	820.8
172.5°	804.4	813.4	809.5	811.7	816.7
175°	815.7	820.7	815.7	810.4	805.4
177.5°	815.7	819.7	815.7	815.6	811.6
180°	815.7	815.7	815.7	815.7	815.7

(END OF REPORT)