

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: P645040

Luminaire Tested: OMN4DIP-SR4F0-75D100U930-WBMOOB-1DUDD-WW

Issue Date: 9/2/2020



**Test Information**

Test Method: LM-79-2019  
Report Number: P645040  
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-SR4F0-75D100U930-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 - 1000 LUMENS PER FOOT  
Light Source: 3000K CCT, 90 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

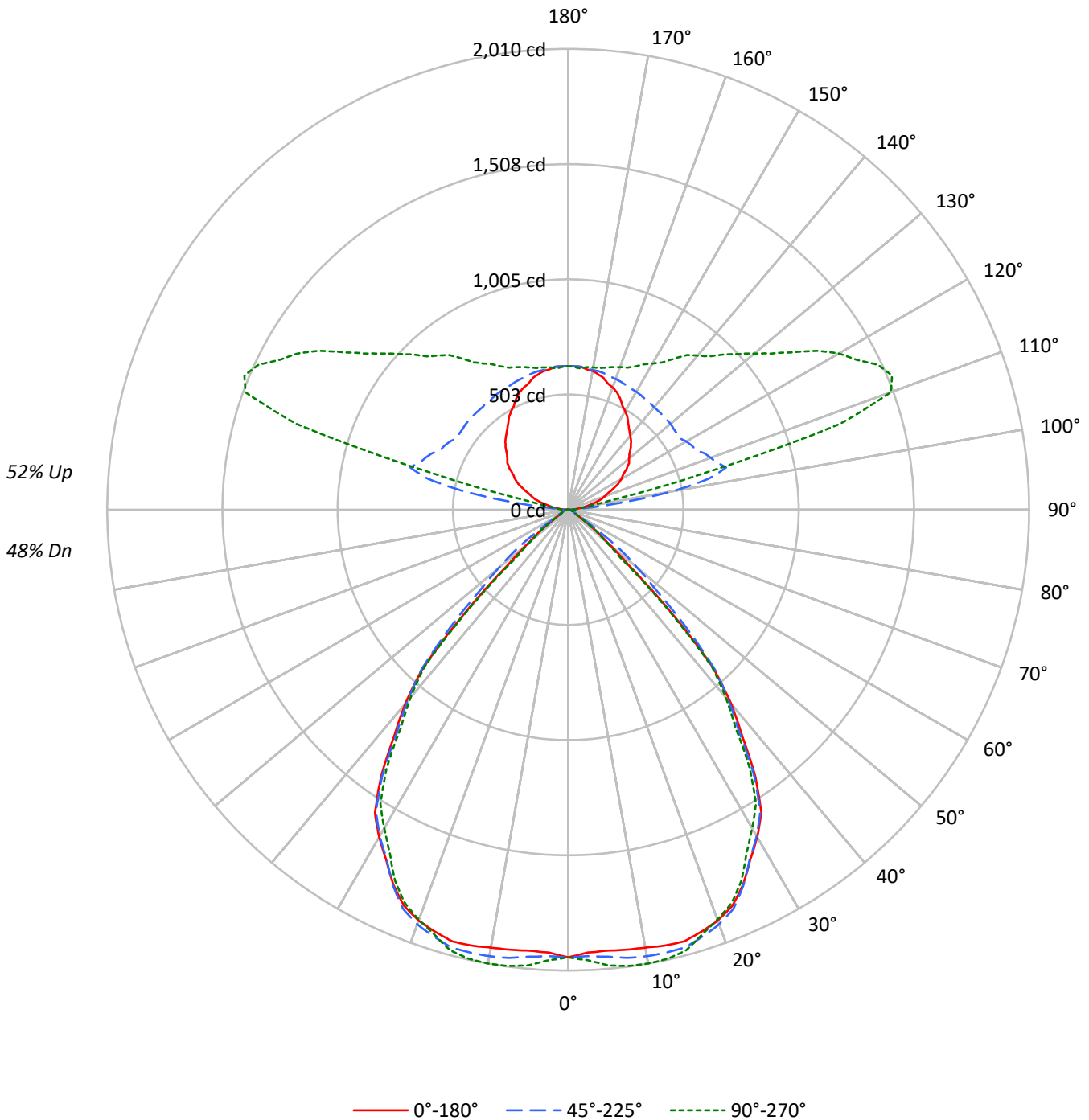
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 6504.3 lumens  
Efficiency: N/A  
Efficacy: 114.3 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): 56.9  
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

TEST NUMBER: P645040

CATALOG NUMBER: OMN4DIP-SR4F0-75D100U930-WBMOOB-1DUDD-WW

### Luminous Intensity Polar Plot





TEST NUMBER: P645040

CATALOG NUMBER: OMN4DIP-SR4F0-75D100U930-WBMOOB-1DUDD-WW

**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	107	107	107	107	98	98	98	98	82	82	82	68	68	68	55	55	55	48																				
1	99	95	92	89	91	88	85	83	75	73	71	62	61	60	51	50	49	44																				
2	92	85	80	76	85	79	75	71	68	65	62	57	55	53	47	46	44	40																				
3	85	77	71	66	78	71	66	62	61	57	54	52	49	47	43	42	40	36																				
4	79	69	62	57	73	65	59	54	56	51	48	48	45	42	40	38	36	33																				
5	73	63	56	50	67	59	52	48	51	46	43	44	40	38	37	35	33	30																				
6	68	57	50	45	63	53	47	42	47	42	38	40	37	34	34	32	30	27																				
7	63	52	45	40	58	49	43	38	43	38	34	37	33	31	32	29	27	25																				
8	59	48	41	36	55	45	39	34	39	35	31	34	31	28	30	27	25	23																				
9	55	44	37	32	51	41	35	31	36	32	28	32	28	26	28	25	23	21																				
10	52	41	34	29	48	38	32	28	34	29	26	30	26	23	26	23	21	19																				

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

	0°	45°	90°
0°	25220	25220	25220
5°	25030	25373	25869
10°	25435	25937	26360
15°	26069	26424	26600
20°	26212	26454	26151
25°	25711	25773	25458
30°	24581	24516	23924
35°	22442	22256	21792
40°	18642	18369	18023
45°	11709	13320	11172
50°	4491	7889	4166
55°	2119	3310	2153
60°	1026	1671	912
65°	944	987	853
70°	944	944	835
75°	953	953	808
80°	982	878	766
85°	1097	874	652

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 45°  
 Vertical Angle: 45°  
 Luminance: 13320 cd/sqm



TEST NUMBER: P645040

CATALOG NUMBER: OMN4DIP-SR4F0-75D100U930-WBMOOB-1DUDD-WW

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	188.1	2.9
10°-20°	556.2	8.6
20°-30°	826.3	12.7
30°-40°	864.8	13.3
40°-50°	523.8	8.1
50°-60°	120.9	1.9
60°-70°	33.2	0.5
70°-80°	19.4	0.3
80°-90°	8.1	0.1
90°-100°	77.0	1.2
100°-110°	548.6	8.4
110°-120°	744.7	11.4
120°-130°	606.1	9.3
130°-140°	487.5	7.5
140°-150°	384.3	5.9
150°-160°	281.0	4.3
160°-170°	174.6	2.7
170°-180°	59.5	0.9
0°-30°	1570.6	24.1
0°-40°	2435.4	37.4
0°-60°	3080.2	47.4
0°-90°	3141.0	48.3
90°-120°	1370.3	21.1
90°-150°	2848.3	43.8
90°-180°	3363.0	51.7
0°-180°	6504.3	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1952	1952	1952	1952	1952	
5°	1930	1975	1957	1965	1995	185
15°	1950	2008	1976	1960	1989	549
25°	1804	1857	1808	1762	1786	826
35°	1423	1445	1411	1379	1382	875
45°	641	729	729	704	612	492
55°	94	107	147	101	96	98
65°	31	32	32	29	28	31
75°	19	19	19	18	16	20
85°	7	7	6	6	4	7
90°	0	4	8	12	12	2
95°	32	58	32	36	43	35
105°	122	188	713	910	602	129
115°	217	263	614	1277	1492	215
125°	311	353	579	1012	1197	276
135°	386	428	583	834	957	297
145°	457	495	587	726	803	287
155°	536	555	599	658	689	246
165°	595	602	614	630	642	167
175°	626	630	626	622	618	59
180°	626	626	626	626	626	

TEST NUMBER: P645040

CATALOG NUMBER: OMN4DIP-SR4F0-75D100U930-WBMOOB-1DUDD-WW

**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1952.5	1952.5	1952.5	1952.5	1952.5
2.5°	1933.6	1968.1	1948.9	1950.5	1966.6
5°	1930.4	1975.0	1956.9	1964.9	1995.1
7.5°	1935.7	1982.3	1971.6	1974.4	2007.4
10°	1939.2	1988.1	1977.5	1976.7	2009.8
12.5°	1947.5	1998.6	1978.6	1974.4	2006.3
15°	1949.5	2008.5	1976.0	1960.5	1989.2
17.5°	1930.4	1995.4	1951.6	1919.5	1942.5
20°	1906.9	1973.0	1924.5	1879.5	1902.5
22.5°	1870.4	1935.4	1883.4	1834.8	1859.0
25°	1804.0	1857.2	1808.4	1761.9	1786.3
27.5°	1719.9	1757.2	1715.5	1671.4	1685.2
30°	1648.1	1685.5	1643.7	1598.3	1604.0
32.5°	1568.1	1599.8	1559.0	1518.3	1522.9
35°	1423.2	1444.7	1411.4	1379.1	1382.0
37.5°	1246.8	1249.6	1227.0	1197.7	1198.2
40°	1105.6	1114.2	1089.4	1066.0	1068.9
42.5°	937.4	971.3	947.1	926.0	926.5
45°	641.0	728.7	729.2	703.6	611.6
47.5°	354.0	455.5	520.8	403.8	304.9
50°	223.5	288.2	392.6	236.1	207.3
52.5°	160.0	189.0	286.7	167.0	152.0
55°	94.1	107.0	147.0	101.3	95.6
57.5°	57.3	68.6	85.9	67.7	57.6
60°	39.7	49.8	64.7	45.3	35.3
62.5°	35.0	38.2	50.6	36.1	32.9
65°	30.9	32.3	32.3	29.4	27.9
67.5°	27.3	28.8	27.3	25.8	24.4
70°	25.0	26.4	25.0	23.5	22.1
72.5°	22.6	24.1	22.6	21.1	19.7
75°	19.1	19.1	19.1	17.6	16.2
77.5°	15.6	15.6	15.3	14.1	12.6
80°	13.2	13.2	11.8	11.7	10.3
82.5°	10.9	10.9	9.4	9.4	7.9
85°	7.4	7.4	5.9	5.8	4.4
87.5°	3.5	4.3	3.9	4.7	3.5
90°	0.0	3.9	7.9	11.8	11.8
92.5°	9.5	13.3	17.3	24.5	27.6
95°	31.5	58.5	31.5	35.6	43.3
97.5°	55.9	112.1	231.5	68.3	59.1
100°	74.8	140.3	464.7	136.8	90.6
102.5°	93.7	162.3	628.5	360.9	197.7
105°	122.1	187.5	712.8	910.5	602.5
107.5°	150.4	199.7	680.5	1325.2	1241.2
110°	169.3	215.5	661.6	1392.4	1496.4



TEST NUMBER: P645040

CATALOG NUMBER: OMN4DIP-SR4F0-75D100U930-WBMOOB-1DUDD-WW

**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°
112.5°	188.2	234.4	642.7	1353.1	1527.9
115°	216.6	262.8	614.3	1276.8	1492.5
117.5°	245.7	291.2	607.2	1194.3	1416.1
120°	267.8	310.1	594.6	1131.5	1362.5
122.5°	283.5	329.0	578.9	1077.5	1290.0
125°	311.1	353.4	578.9	1012.3	1197.1
127.5°	333.9	377.1	579.7	936.6	1119.1
130°	346.5	392.7	582.8	886.0	1059.3
132.5°	362.3	408.5	582.8	863.3	1005.7
135°	385.9	428.3	582.8	833.7	956.9
137.5°	405.6	451.0	582.8	801.0	906.5
140°	421.4	463.7	582.8	781.9	878.1
142.5°	437.1	476.4	586.0	759.7	849.8
145°	456.8	495.3	586.7	726.3	803.3
147.5°	480.4	514.3	591.5	702.3	761.6
150°	496.2	527.0	594.6	686.3	736.4
152.5°	511.9	539.6	594.6	673.5	714.3
155°	535.6	554.8	598.6	658.3	689.1
157.5°	554.5	572.9	603.3	648.7	671.0
160°	567.1	582.5	606.4	642.3	661.6
162.5°	576.5	591.9	609.6	639.0	652.1
165°	594.6	602.3	614.3	630.3	641.9
167.5°	604.9	611.8	618.2	626.3	633.2
170°	614.3	618.2	618.2	626.2	630.1
172.5°	617.5	624.4	621.4	623.1	626.9
175°	626.1	630.0	626.1	622.1	618.2
177.5°	626.1	629.2	626.1	626.1	623.0
180°	626.1	626.1	626.1	626.1	626.1

(END OF REPORT)