

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: P644500

Luminaire Tested: OMN4DIP-SR4F0-100D100U930-WBMOOB-1DUDD-WW

Issue Date: 9/2/2020



Test Information

Test Method: LM-79-2019
Report Number: P644500
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-SR4F0-100D100U930-WBMOOB-1DUDD-WW
Description: NEO-RAY CIRQUE 4-INCH DIAMETER LINEAR LED LUMINAIRE
DOWNLIGHT - WHITE BAFFLE WITH MEDIUM OPTIC - 1000 LUMENS PER FOOT
UPLIGHT - BATWING OPTIC - 1000 LUMENS PER FOOT
Light Source: 3000K CCT, 90 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

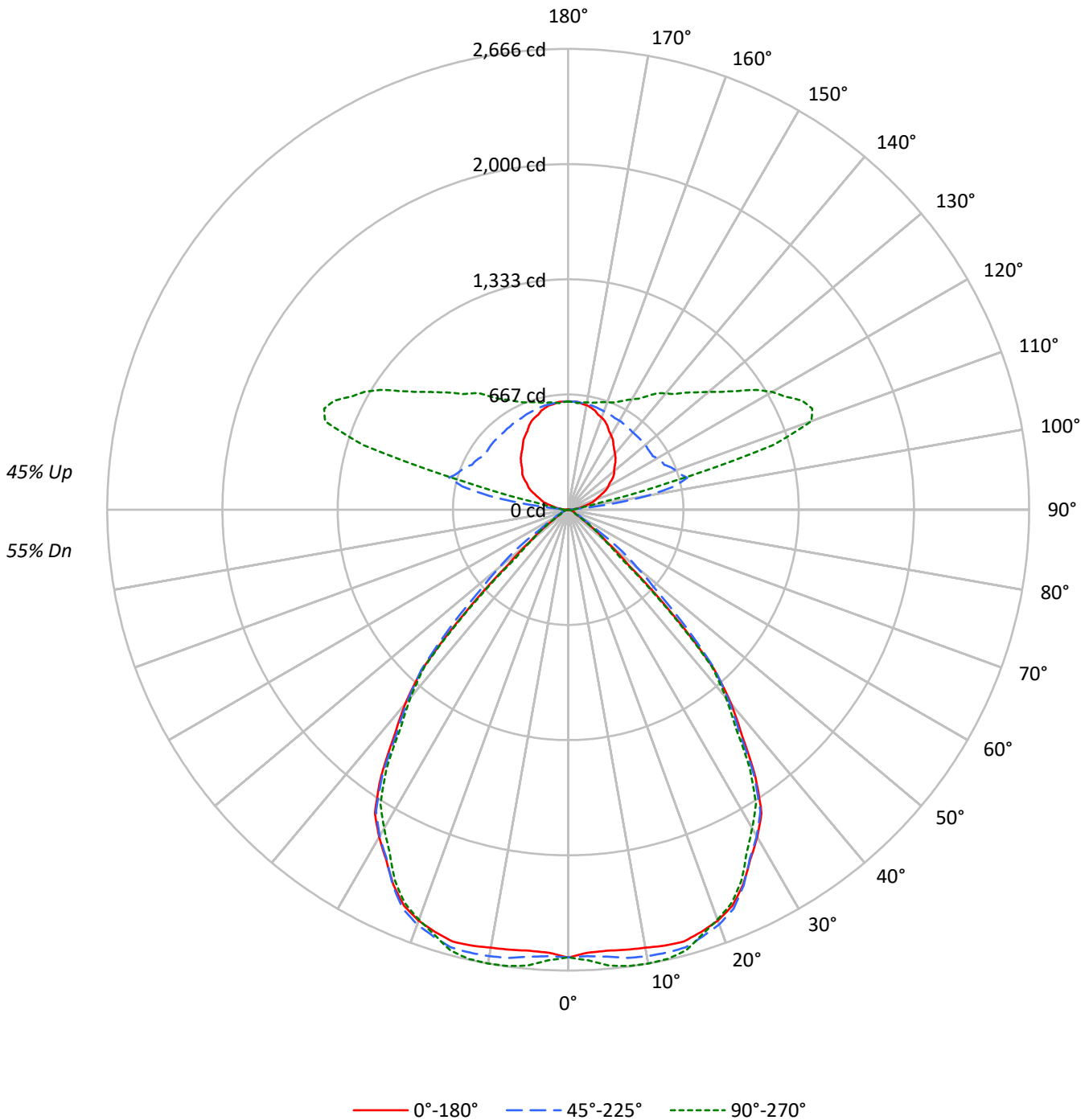
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 7529.5 lumens
Efficiency: N/A
Efficacy: 112.2 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): 67.1
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

TEST NUMBER: P644500
CATALOG NUMBER: OMN4DIP-SR4F0-100D100U930-WBMOOB-1DUDD-WW

Luminous Intensity Polar Plot





TEST NUMBER: P644500

CATALOG NUMBER: OMN4DIP-SR4F0-100D100U930-WBMOOB-1DUDD-WW

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	50	30	10	0	
RCR																						
0	108	108	108	108	101	101	101	101	86	86	86	73	73	73	61	61	61	55				
1	101	97	94	91	94	91	88	86	79	77	75	67	66	65	57	56	55	51				
2	94	87	82	78	87	82	77	74	71	68	65	62	59	57	53	51	50	46				
3	87	79	73	68	81	74	69	64	65	61	58	57	54	51	49	47	45	41				
4	81	71	64	59	75	67	61	57	59	55	51	52	49	46	45	43	41	37				
5	75	65	58	52	70	61	55	50	54	49	46	48	44	41	42	39	37	34				
6	70	59	52	47	65	56	49	45	50	45	41	44	40	37	39	36	34	31				
7	65	54	47	42	61	51	45	40	46	41	37	41	37	34	36	33	31	28				
8	61	50	43	38	57	47	41	36	42	37	34	38	34	31	33	30	28	26				
9	57	46	39	34	53	43	37	33	39	34	31	35	31	28	31	28	26	24				
10	53	42	36	31	50	40	34	30	36	31	28	33	29	26	29	26	24	22				

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	33454	33454	33454
5°	33202	33657	34315
10°	33740	34405	34967
15°	34582	35052	35286
20°	34770	35091	34690
25°	34105	34188	33772
30°	32609	32521	31736
35°	29769	29523	28908
40°	24729	24368	23908
45°	15532	17670	14820
50°	5956	10463	5526
55°	2810	4391	2855
60°	1361	2217	1209
65°	1253	1311	1134
70°	1254	1254	1107
75°	1268	1268	1073
80°	1309	1160	1019
85°	1452	1156	874

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 45°
 Vertical Angle: 45°
 Luminance: 17670 cd/sqm



TEST NUMBER: P644500

CATALOG NUMBER: OMN4DIP-SR4F0-100D100U930-WBMOOB-1DUDD-WW

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	249.5	3.3
10°-20°	737.8	9.8
20°-30°	1096.1	14.6
30°-40°	1147.2	15.2
40°-50°	694.9	9.2
50°-60°	160.3	2.1
60°-70°	44.1	0.6
70°-80°	25.8	0.3
80°-90°	10.3	0.1
90°-100°	77.0	1.0
100°-110°	548.6	7.3
110°-120°	744.7	9.9
120°-130°	606.1	8.1
130°-140°	487.5	6.5
140°-150°	384.3	5.1
150°-160°	281.0	3.7
160°-170°	174.6	2.3
170°-180°	59.5	0.8
0°-30°	2083.4	27.7
0°-40°	3230.6	42.9
0°-60°	4085.9	54.3
0°-90°	4166.1	55.3
90°-120°	1370.3	18.2
90°-150°	2848.3	37.8
90°-180°	3363.0	44.7
0°-180°	7529.5	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2590	2590	2590	2590	2590	
5°	2561	2620	2596	2606	2646	245
15°	2586	2664	2621	2601	2639	728
25°	2393	2464	2399	2337	2370	1096
35°	1888	1916	1872	1830	1833	1160
45°	850	967	967	933	811	653
55°	125	142	195	134	127	130
65°	41	43	43	39	37	41
75°	25	25	25	23	22	27
85°	10	10	8	8	6	10
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: P644500

CATALOG NUMBER: OMN4DIP-SR4F0-100D100U930-WBMOOB-1DUDD-WW

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2590.0	2590.0	2590.0	2590.0	2590.0
2.5°	2565.0	2610.8	2585.3	2587.3	2608.7
5°	2560.7	2619.8	2595.8	2606.5	2646.5
7.5°	2567.7	2629.5	2615.3	2619.1	2662.9
10°	2572.4	2637.3	2623.1	2622.2	2666.0
12.5°	2583.3	2651.2	2624.7	2619.0	2661.4
15°	2586.1	2664.3	2621.2	2600.6	2638.7
17.5°	2560.7	2646.9	2588.8	2546.2	2576.7
20°	2529.5	2617.2	2552.9	2493.2	2523.7
22.5°	2481.1	2567.3	2498.3	2433.9	2465.9
25°	2393.0	2463.6	2398.8	2337.2	2369.6
27.5°	2281.4	2331.0	2275.6	2217.1	2235.4
30°	2186.3	2235.8	2180.4	2120.1	2127.8
32.5°	2080.2	2122.1	2068.1	2014.0	2020.1
35°	1887.9	1916.5	1872.3	1829.5	1833.3
37.5°	1653.8	1657.7	1627.7	1588.7	1589.5
40°	1466.6	1478.1	1445.2	1414.0	1417.9
42.5°	1243.5	1288.5	1256.4	1228.3	1229.1
45°	850.3	966.6	967.3	933.4	811.3
47.5°	469.6	604.3	690.8	535.7	404.5
50°	296.4	382.3	520.7	313.1	275.0
52.5°	212.2	250.7	380.3	221.5	201.7
55°	124.8	142.0	195.0	134.4	126.8
57.5°	76.1	90.9	113.9	89.8	76.5
60°	52.7	66.0	85.8	60.2	46.8
62.5°	46.4	50.6	67.1	47.9	43.7
65°	41.0	42.9	42.9	39.0	37.1
67.5°	36.3	38.2	36.3	34.3	32.4
70°	33.2	35.1	33.2	31.2	29.3
72.5°	30.0	31.9	30.0	28.0	26.1
75°	25.4	25.4	25.4	23.4	21.5
77.5°	20.7	20.7	20.3	18.7	16.8
80°	17.6	17.6	15.6	15.6	13.7
82.5°	14.4	14.4	12.5	12.4	10.5
85°	9.8	9.8	7.8	7.8	5.9
87.5°	4.7	5.5	4.7	5.4	3.9
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: P644500

CATALOG NUMBER: OMN4DIP-SR4F0-100D100U930-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)