

Signify Classified - Internal  
Cooper Lighting Solutions Photometric Lab  
1121 Highway 74 South  
Peachtree City, GA 30269



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: P644680

Luminaire Tested: OMN4DIP-SR4F0-125D100U930-WBMOOB-1DUDD-WW

Issue Date: 9/2/2020



**Test Information**

Test Method: LM-79-2019  
Report Number: P644680  
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-SR4F0-125D100U930-WBMOOB-1DUDD-WW  
Description: NEO-RAY CIRQUE 4-INCH DIAMETER LINEAR LED LUMINAIRE  
DOWNLIGHT - WHITE BAFFLE WITH MEDIUM OPTIC - 1250 LUMENS PER FOOT  
UPLIGHT - BATWING OPTIC - 1000 LUMENS PER FOOT  
Light Source: 3000K CCT, 90 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

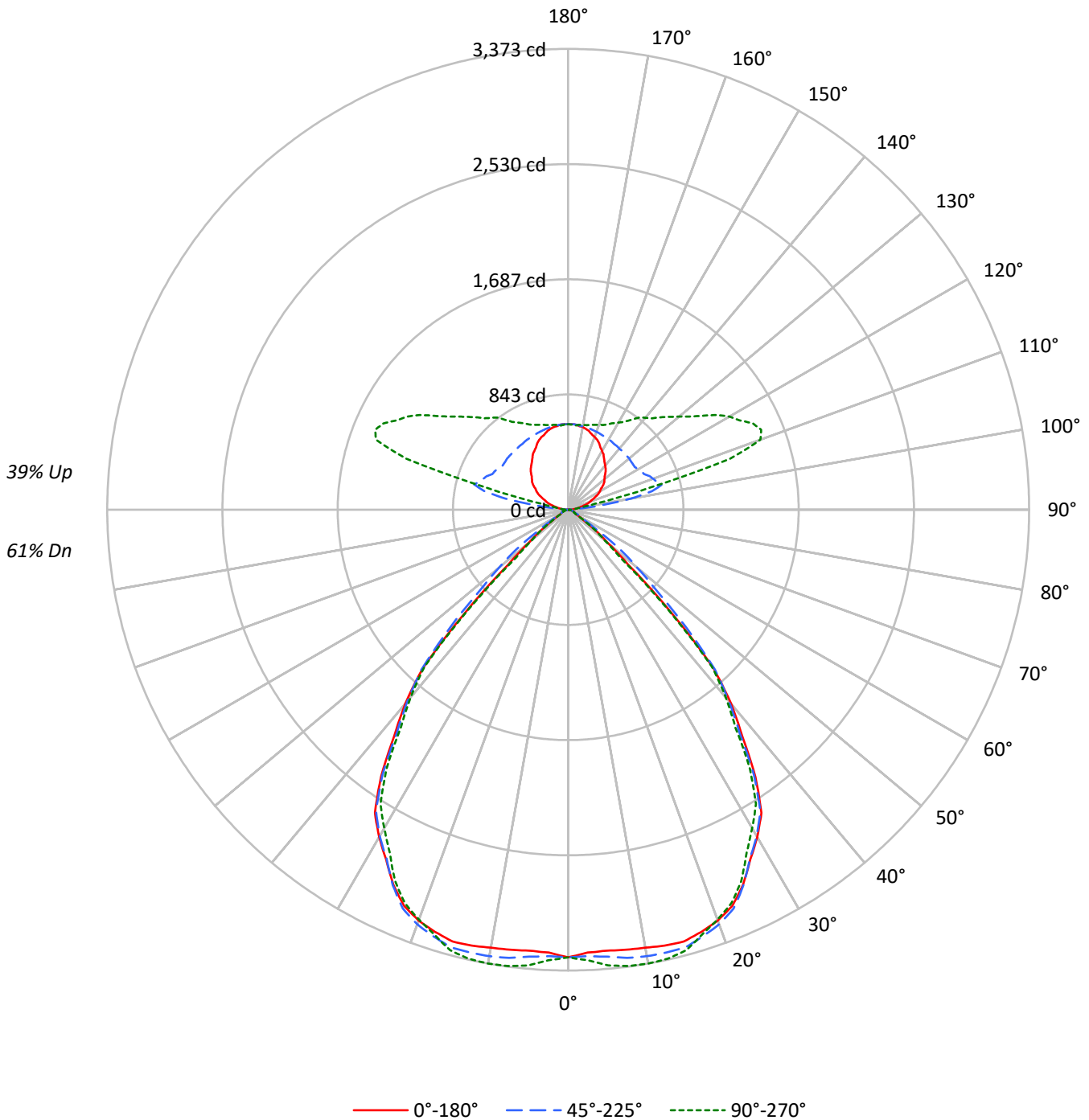
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 8633.5 lumens  
Efficiency: N/A  
Efficacy: 110.0 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: Semi-Direct

Input Watts (W): 78.5  
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: P644680  
CATALOG NUMBER: OMN4DIP-SR4F0-125D100U930-WBMOOB-1DUDD-WW

### Luminous Intensity Polar Plot





TEST NUMBER: P644680

CATALOG NUMBER: OMN4DIP-SR4F0-125D100U930-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	110	110	110	110	103	103	103	103	89	89	89	77	77	77	66	66	66	66	66	66	61	
1	102	99	96	93	96	93	90	88	82	80	78	71	70	69	62	61	60	60	60	60	56	
2	95	89	84	80	89	84	80	76	74	71	68	66	63	61	57	56	54	54	54	54	50	
3	88	80	74	69	83	76	71	66	68	64	60	60	57	55	53	51	49	49	49	49	46	
4	82	73	66	61	77	69	63	59	62	57	54	55	52	49	49	46	44	44	44	44	41	
5	76	66	59	54	72	63	57	52	57	52	48	51	47	44	45	43	40	40	40	40	38	
6	71	61	53	48	67	58	51	47	52	47	43	47	43	40	42	39	37	37	37	37	34	
7	66	55	48	43	63	53	46	42	48	43	39	43	39	36	39	36	33	33	33	33	31	
8	62	51	44	39	59	49	42	38	44	39	35	40	36	33	36	33	31	31	31	31	29	
9	58	47	40	36	55	45	39	35	41	36	32	37	33	30	34	31	28	28	28	28	26	
10	55	44	37	32	52	42	36	32	38	33	30	35	31	28	32	28	26	26	26	26	24	

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

	0°	45°	90°
0°	42323	42323	42323
5°	42005	42581	43413
10°	42685	43525	44238
15°	43750	44344	44641
20°	43988	44394	43886
25°	43147	43252	42725
30°	41253	41143	40148
35°	37661	37349	36572
40°	31285	30828	30245
45°	19652	22355	18749
50°	7536	13238	6991
55°	3556	5556	3612
60°	1721	2806	1529
65°	1583	1660	1433
70°	1582	1582	1397
75°	1602	1602	1352
80°	1651	1465	1287
85°	1823	1467	1097

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 45°  
 Vertical Angle: 45°  
 Luminance: 22355 cd/sqm



TEST NUMBER: P644680

CATALOG NUMBER: OMN4DIP-SR4F0-125D100U930-WBMOOB-1DUDD-WW

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	315.6	3.7
10°-20°	933.5	10.8
20°-30°	1386.7	16.1
30°-40°	1451.4	16.8
40°-50°	879.1	10.2
50°-60°	202.8	2.3
60°-70°	55.7	0.6
70°-80°	32.7	0.4
80°-90°	12.7	0.1
90°-100°	77.0	0.9
100°-110°	548.6	6.4
110°-120°	744.7	8.6
120°-130°	606.1	7.0
130°-140°	487.5	5.6
140°-150°	384.3	4.5
150°-160°	281.0	3.3
160°-170°	174.6	2.0
170°-180°	59.5	0.7
0°-30°	2635.7	30.5
0°-40°	4087.1	47.3
0°-60°	5169.1	59.9
0°-90°	5270.2	61.0
90°-120°	1370.3	15.9
90°-150°	2848.3	33.0
90°-180°	3363.0	39.0
0°-180°	8633.5	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	3277	3277	3277	3277	3277	
5°	3240	3314	3284	3298	3348	310
15°	3272	3371	3316	3290	3338	921
25°	3027	3117	3035	2957	2998	1386
35°	2388	2425	2369	2314	2319	1468
45°	1076	1223	1224	1181	1026	826
55°	158	180	247	170	160	164
65°	52	54	54	49	47	52
75°	32	32	32	30	27	34
85°	12	12	10	10	7	12
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: P644680

CATALOG NUMBER: OMN4DIP-SR4F0-125D100U930-WBMOOB-1DUDD-WW

**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	3276.6	3276.6	3276.6	3276.6	3276.6
2.5°	3245.0	3302.9	3270.7	3273.3	3300.3
5°	3239.6	3314.4	3284.0	3297.5	3348.2
7.5°	3248.5	3326.6	3308.7	3313.4	3368.9
10°	3254.4	3336.4	3318.5	3317.3	3372.8
12.5°	3268.2	3354.1	3320.5	3313.4	3366.9
15°	3271.7	3370.6	3316.1	3290.0	3338.3
17.5°	3239.6	3348.6	3275.1	3221.2	3259.8
20°	3200.1	3311.1	3229.7	3154.1	3192.7
22.5°	3138.9	3248.0	3160.6	3079.2	3119.7
25°	3027.4	3116.7	3034.8	2956.8	2997.8
27.5°	2886.3	2949.0	2878.9	2804.9	2828.0
30°	2765.9	2828.6	2758.5	2682.2	2691.8
32.5°	2631.6	2684.7	2616.3	2547.9	2555.7
35°	2388.4	2424.6	2368.6	2314.5	2319.3
37.5°	2092.3	2097.1	2059.2	2009.9	2010.9
40°	1855.4	1869.9	1828.3	1788.9	1793.7
42.5°	1573.2	1630.1	1589.4	1553.9	1554.9
45°	1075.8	1222.9	1223.8	1180.8	1026.4
47.5°	594.1	764.5	873.9	677.7	511.7
50°	375.0	483.6	658.8	396.1	347.9
52.5°	268.4	317.2	481.1	280.2	255.1
55°	157.9	179.6	246.7	170.0	160.4
57.5°	96.2	115.0	144.1	113.6	96.7
60°	66.6	83.5	108.6	76.1	59.2
62.5°	58.7	64.0	84.9	60.6	55.3
65°	51.8	54.2	54.3	49.3	46.9
67.5°	45.9	48.3	45.9	43.4	41.0
70°	41.9	44.4	41.9	39.4	37.0
72.5°	38.0	40.4	38.0	35.5	33.1
75°	32.1	32.1	32.1	29.6	27.1
77.5°	26.2	26.2	25.7	23.6	21.2
80°	22.2	22.2	19.7	19.7	17.3
82.5°	18.3	18.3	15.8	15.7	13.3
85°	12.3	12.3	9.9	9.8	7.4
87.5°	5.9	6.7	5.5	6.3	4.3
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: P644680

CATALOG NUMBER: OMN4DIP-SR4F0-125D100U930-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)