

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: P644681

Luminaire Tested: OMN4DIP-SR4F0-125D100U935-BBMOOB-1DUDD-WW

Issue Date: 9/2/2020



**Test Information**

Test Method: LM-79-2019  
Report Number: P644681  
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2203-563-26, G2-2206-689-23)  
Test Lab: INNOVATION CENTER  
Issue Date: 9/2/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: NEO-RAY  
Catalog Number: OMN4DIP-SR4F0-125D100U935-BBMOOB-1DUDD-WW  
Description: NEO-RAY CIRQUE 4-INCH DIAMETER LINEAR LED LUMINAIRE  
DOWNLIGHT - BLACK BAFFLE WITH MEDIUM OPTIC - 1250 LUMENS PER FOOT  
UPLIGHT - BATWING OPTIC - 1000 LUMENS PER FOOT  
Light Source: 3500K CCT, 90 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

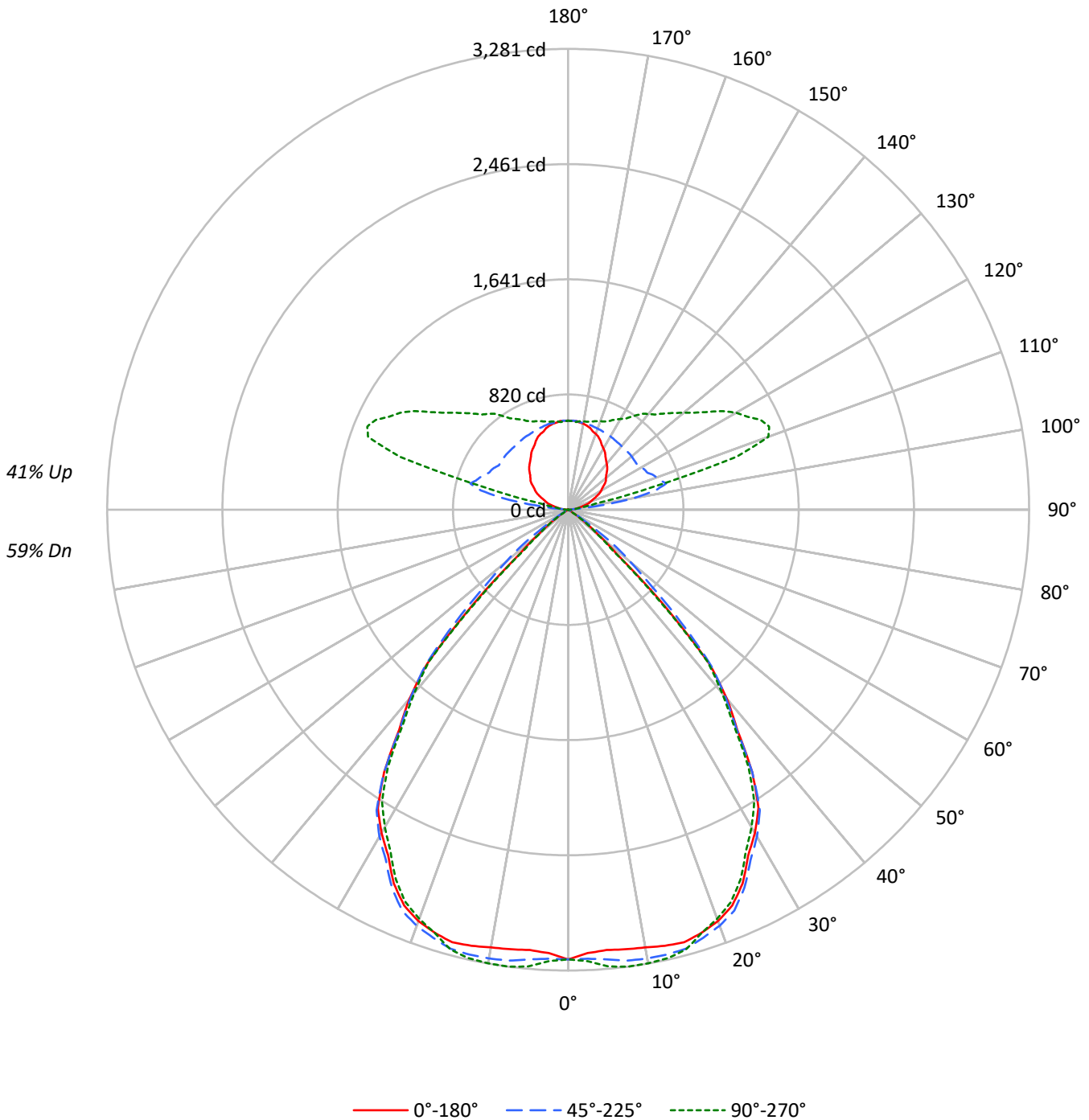
Lumens per Lamp: N/A  
Luminaire Lumens: 8325.6 lumens  
Efficiency: N/A  
Efficacy: 106.1 lumens/watt  
Spacing Criteria (0/90/45): 1.22 / 1.21 / 1.18  
Luminous Opening: Rectangular (W 0.21' x L: 4' x H: 0')  
CIE Type: General Diffuse

Input Watts (W): 78.5  
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

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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	109	109	109	109	102	102	102	102	88	88	88	76	76	76	64	64	64	59																				
1	102	99	96	93	95	92	90	87	81	79	77	70	69	68	61	60	59	54																				
2	95	89	84	80	89	84	79	76	74	71	68	65	63	61	56	55	53	50																				
3	88	81	75	70	83	76	71	67	67	64	60	60	57	54	52	50	49	45																				
4	82	73	66	61	77	69	63	59	62	57	54	55	52	49	48	46	44	41																				
5	77	67	60	54	72	63	57	52	57	52	48	51	47	44	45	42	40	37																				
6	71	61	54	49	67	58	51	47	52	47	43	47	43	40	42	39	37	34																				
7	67	56	49	44	63	53	47	42	48	43	39	43	39	36	39	36	33	31																				
8	62	51	44	40	59	49	43	38	44	39	36	40	36	33	36	33	31	29																				
9	58	47	41	36	55	45	39	35	41	36	33	37	33	30	34	31	28	26																				
10	55	44	37	33	52	42	36	32	38	33	30	35	31	28	32	28	26	24																				

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

	0°	45°	90°
0°	41352	41352	41352
5°	40796	41672	42320
10°	41498	42547	43006
15°	42643	43278	43345
20°	42837	43318	42597
25°	41851	42314	41388
30°	39623	40070	38915
35°	36018	36018	35269
40°	29624	29329	28697
45°	17714	20817	16891
50°	5725	11601	5373
55°	2027	3882	2027
60°	129	1098	65
65°	76	76	0
70°	94	0	0
75°	0	0	0
80°	0	0	0
85°	371	0	0

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 45°

Vertical Angle: 45°

Luminance: 20817 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	308.0	3.7
10°-20°	911.4	10.9
20°-30°	1348.7	16.2
30°-40°	1394.0	16.7
40°-50°	811.1	9.7
50°-60°	137.4	1.7
60°-70°	5.4	0.1
70°-80°	0.8	0.0
80°-90°	2.1	0.0
90°-100°	78.0	0.9
100°-110°	555.6	6.7
110°-120°	754.3	9.1
120°-130°	613.9	7.4
130°-140°	493.8	5.9
140°-150°	389.3	4.7
150°-160°	284.7	3.4
160°-170°	176.8	2.1
170°-180°	60.3	0.7
0°-30°	2568.0	30.8
0°-40°	3962.0	47.6
0°-60°	4910.6	59.0
0°-90°	4918.9	59.1
90°-120°	1387.9	16.7
90°-150°	2884.9	34.7
90°-180°	3407.0	40.9
0°-180°	8325.6	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	3201	3201	3201	3201	3201	
5°	3146	3230	3214	3222	3264	301
15°	3189	3301	3236	3219	3241	897
25°	2936	3034	2969	2880	2904	1341
35°	2284	2321	2284	2227	2237	1399
45°	970	1128	1140	1101	925	750
55°	90	105	172	97	90	99
65°	2	2	2	0	0	3
75°	0	2	0	0	0	1
85°	2	2	0	0	0	1
90°	0	4	8	12	12	2
95°	32	59	32	36	44	36
105°	124	190	722	922	610	130
115°	219	266	622	1293	1512	218
125°	315	358	586	1025	1212	280
135°	391	434	590	844	969	301
145°	463	502	594	736	814	291
155°	542	562	606	667	698	249
165°	602	610	622	638	650	169
175°	634	638	634	630	626	60
180°	634	634	634	634	634	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	3201.4	3201.4	3201.4	3201.4	3201.4
2.5°	3159.4	3222.0	3199.4	3201.7	3217.4
5°	3146.4	3229.5	3213.9	3222.3	3263.9
7.5°	3155.9	3240.0	3237.9	3240.3	3280.9
10°	3163.9	3251.9	3243.9	3242.2	3278.9
12.5°	3179.9	3275.7	3243.9	3240.1	3270.9
15°	3188.9	3301.3	3236.4	3219.4	3241.4
17.5°	3158.4	3283.5	3195.4	3150.1	3158.9
20°	3116.4	3243.5	3151.4	3084.3	3098.9
22.5°	3050.4	3171.6	3089.4	3006.4	3024.9
25°	2936.5	3034.2	2969.0	2879.6	2904.0
27.5°	2774.5	2851.7	2810.5	2723.9	2739.0
30°	2656.6	2720.1	2686.6	2601.8	2609.1
32.5°	2520.6	2574.4	2538.6	2465.6	2465.1
35°	2284.2	2320.9	2284.2	2226.9	2236.7
37.5°	1974.8	2002.7	1965.3	1930.9	1935.8
40°	1756.9	1778.9	1739.4	1706.8	1701.9
42.5°	1485.0	1546.1	1507.5	1463.1	1470.0
45°	969.7	1128.5	1139.6	1100.6	924.7
47.5°	488.8	662.3	793.2	601.9	431.3
50°	284.9	390.0	577.3	318.7	267.4
52.5°	186.9	231.4	403.4	201.4	177.4
55°	90.0	104.6	172.4	97.3	90.0
57.5°	31.0	47.6	76.5	48.7	34.5
60°	5.0	19.7	42.5	14.7	2.5
62.5°	3.0	5.9	26.5	2.9	0.5
65°	2.5	2.5	2.5	0.0	0.0
67.5°	2.5	2.5	0.0	0.0	0.0
70°	2.5	2.5	0.0	0.0	0.0
72.5°	2.5	2.5	0.0	0.0	0.0
75°	0.0	2.4	0.0	0.0	0.0
77.5°	0.0	2.4	0.0	0.0	0.0
80°	0.0	2.4	0.0	0.0	0.0
82.5°	0.0	2.4	0.0	0.0	0.0
85°	2.5	2.5	0.0	0.0	0.0
87.5°	2.0	2.8	1.6	2.4	2.4
90°	0.0	3.9	8.0	12.0	12.0
92.5°	9.6	13.5	17.5	24.8	27.9
95°	31.9	59.2	31.9	36.1	43.9
97.5°	56.6	113.6	234.5	69.2	59.8
100°	75.8	142.1	470.7	138.5	91.7
102.5°	94.9	164.3	636.6	365.6	200.2
105°	123.6	189.9	721.9	922.3	610.3
107.5°	152.4	202.3	689.2	1342.2	1257.2
110°	171.5	218.3	670.1	1410.4	1515.7



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**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°
112.5°	190.7	237.5	650.9	1370.5	1547.6
115°	219.4	266.2	622.2	1293.3	1511.7
117.5°	248.9	294.9	615.0	1209.7	1434.3
120°	271.2	314.1	602.3	1146.1	1380.1
122.5°	287.2	333.2	586.3	1091.4	1306.7
125°	315.1	358.0	586.3	1025.3	1212.5
127.5°	338.2	381.9	587.1	948.7	1133.6
130°	351.0	397.8	590.3	897.4	1072.9
132.5°	367.0	413.8	590.3	874.4	1018.7
135°	390.9	433.8	590.3	844.4	969.2
137.5°	410.8	456.8	590.3	811.3	918.2
140°	426.8	469.7	590.3	792.0	889.5
142.5°	442.7	482.5	593.5	769.5	860.7
145°	462.7	501.7	594.3	735.7	813.7
147.5°	486.6	520.9	599.1	711.3	771.4
150°	502.6	533.8	602.3	695.2	745.9
152.5°	518.5	546.6	602.3	682.2	723.5
155°	542.5	562.0	606.3	666.8	698.0
157.5°	561.6	580.3	611.1	657.0	679.7
160°	574.4	590.0	614.2	650.6	670.1
162.5°	583.9	599.5	617.4	647.3	660.5
165°	602.3	610.1	622.2	638.4	650.1
167.5°	612.7	619.7	626.2	634.4	641.4
170°	622.2	626.1	626.2	634.3	638.2
172.5°	625.4	632.4	629.4	631.1	635.0
175°	634.2	638.1	634.2	630.1	626.2
177.5°	634.2	637.3	634.2	634.1	631.0
180°	634.2	634.2	634.2	634.2	634.2

(END OF REPORT)