

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: P644740

Luminaire Tested: OMN4DIP-SR4F0-125D150U930-WBMOOB-1DUDD-WW

Issue Date: 9/2/2020



**Test Information**

Test Method: LM-79-2019  
Report Number: P644740  
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-SR4F0-125D150U930-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 - 1500 LUMENS PER FOOT  
Light Source: 3000K CCT, 90 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

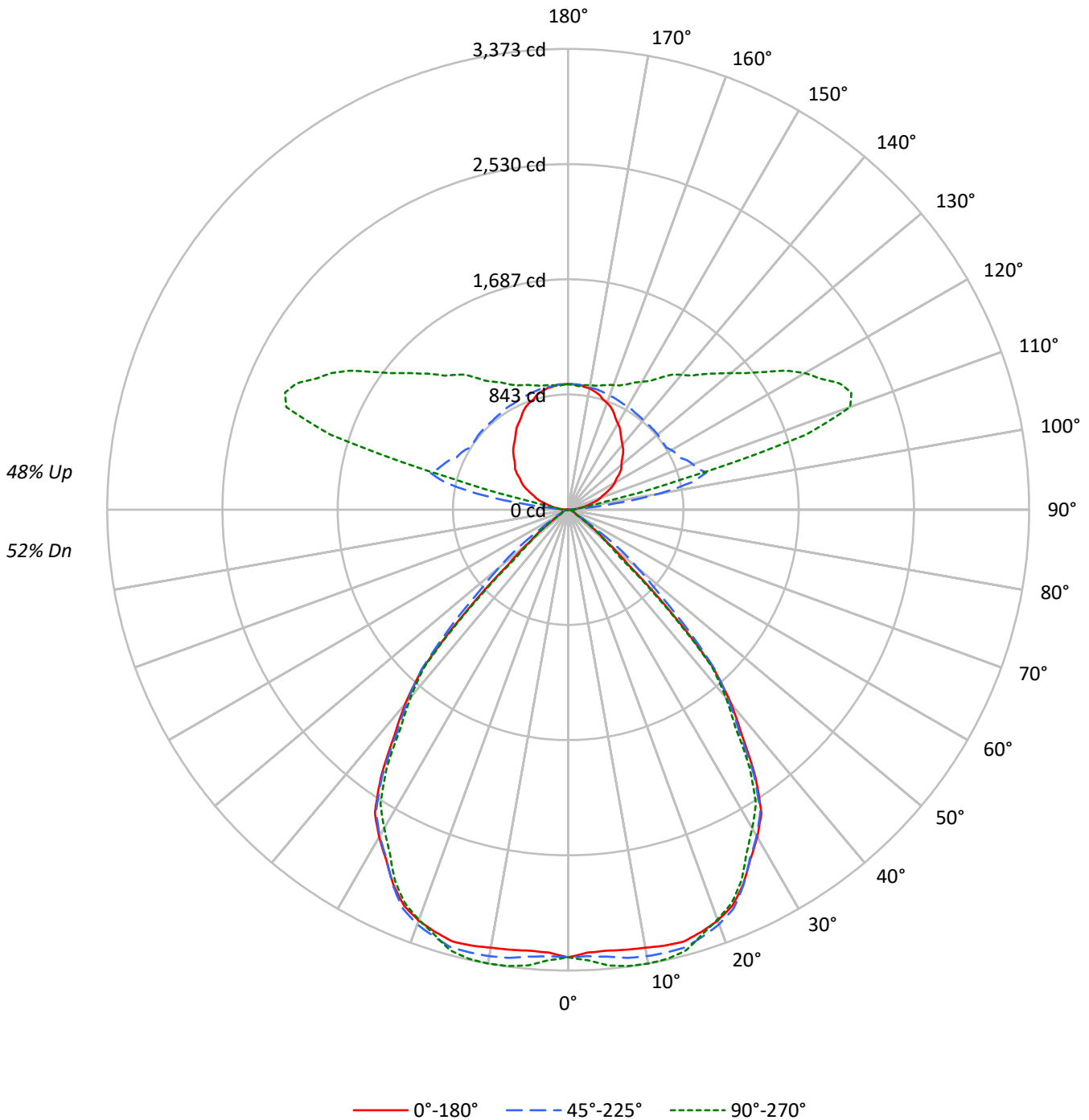
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 10206.2 lumens  
Efficiency: N/A  
Efficacy: 104.0 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: General Diffuse  
  
Input Watts (W): 98.1  
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

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### Luminous Intensity Polar Plot





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**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	99	99	99	99	84	84	84	70	70	70	58	58	58	52				
1	100	96	93	90	92	89	87	84	77	75	73	65	63	62	54	53	52	47				
2	93	86	81	77	86	81	76	72	69	66	64	59	57	55	50	48	47	43				
3	86	78	72	67	80	73	67	63	63	59	56	54	51	49	46	44	42	39				
4	80	70	63	58	74	66	60	55	57	53	49	50	46	44	42	40	38	35				
5	74	64	57	51	69	60	54	49	52	48	44	46	42	39	39	37	35	32				
6	69	58	51	46	64	55	48	44	48	43	39	42	38	35	36	34	32	29				
7	64	53	46	41	60	50	44	39	44	39	36	39	35	32	34	31	29	26				
8	60	49	42	37	56	46	40	35	41	36	32	36	32	29	31	29	26	24				
9	56	45	38	33	52	42	36	32	38	33	29	33	30	27	29	26	24	22				
10	52	41	35	30	49	39	33	29	35	30	27	31	27	25	27	24	22	21				

**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



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	315.6	3.1
10°-20°	933.5	9.1
20°-30°	1386.7	13.6
30°-40°	1451.4	14.2
40°-50°	879.1	8.6
50°-60°	202.8	2.0
60°-70°	55.7	0.5
70°-80°	32.7	0.3
80°-90°	13.4	0.1
90°-100°	113.0	1.1
100°-110°	805.0	7.9
110°-120°	1092.8	10.7
120°-130°	889.4	8.7
130°-140°	715.4	7.0
140°-150°	564.0	5.5
150°-160°	412.4	4.0
160°-170°	256.1	2.5
170°-180°	87.3	0.9
0°-30°	2635.7	25.8
0°-40°	4087.1	40.0
0°-60°	5169.1	50.6
0°-90°	5270.8	51.6
90°-120°	2010.7	19.7
90°-150°	4179.5	41.0
90°-180°	4935.0	48.4
0°-180°	10206.2	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	6	12	17	17	3
95°	46	86	46	52	64	52
105°	179	275	1046	1336	884	189
115°	318	386	901	1874	2190	315
125°	456	519	849	1486	1757	406
135°	566	628	855	1223	1404	436
145°	670	727	861	1066	1179	421
155°	786	814	878	966	1011	361
165°	872	884	901	925	942	245
175°	919	924	919	913	907	87
180°	919	919	919	919	919	



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**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	7.1	6.3	7.4	5.4
90°	0.0	5.7	11.6	17.3	17.3
92.5°	13.9	19.5	25.4	35.9	40.4
95°	46.2	85.8	46.2	52.3	63.6
97.5°	82.1	164.5	339.8	100.2	86.7
100°	109.8	205.8	681.9	200.7	132.9
102.5°	137.5	238.1	922.2	529.6	290.1
105°	179.1	275.2	1045.9	1336.1	884.1
107.5°	220.7	293.1	998.5	1944.5	1821.4
110°	248.5	316.3	970.8	2043.3	2195.8



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**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°
112.5°	276.2	344.0	943.0	1985.5	2242.0
115°	317.8	385.6	901.4	1873.6	2190.0
117.5°	360.6	427.2	891.0	1752.5	2077.9
120°	392.9	455.1	872.5	1660.3	1999.3
122.5°	416.0	482.7	849.4	1581.1	1893.0
125°	456.5	518.6	849.4	1485.5	1756.7
127.5°	490.0	553.3	850.6	1374.4	1642.2
130°	508.5	576.3	855.2	1300.2	1554.4
132.5°	531.6	599.4	855.2	1266.8	1475.8
135°	566.3	628.4	855.2	1223.4	1404.2
137.5°	595.2	661.9	855.2	1175.4	1330.2
140°	618.3	680.4	855.2	1147.3	1288.6
142.5°	641.4	699.0	859.8	1114.8	1247.0
145°	670.3	726.8	861.0	1065.8	1178.8
147.5°	705.0	754.7	867.9	1030.5	1117.6
150°	728.1	773.3	872.5	1007.1	1080.6
152.5°	751.2	791.9	872.5	988.3	1048.2
155°	785.9	814.1	878.3	966.0	1011.2
157.5°	813.6	840.7	885.3	951.9	984.7
160°	832.1	854.7	889.9	942.5	970.8
162.5°	846.0	868.6	894.5	937.7	956.9
165°	872.5	883.8	901.4	924.9	941.9
167.5°	887.6	897.7	907.2	919.0	929.2
170°	901.4	907.1	907.2	918.9	924.6
172.5°	906.1	916.2	911.8	914.3	919.9
175°	918.8	924.4	918.8	912.9	907.2
177.5°	918.8	923.3	918.8	918.7	914.2
180°	918.8	918.8	918.8	918.8	918.8

(END OF REPORT)