

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: P645131

Luminaire Tested: OMN4DIP-SR4F0-75D25U935-BBMOOB-1DUDD-WW

Issue Date: 9/2/2020



**Test Information**

Test Method: LM-79-2019  
Report Number: P645131  
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-SR4F0-75D25U935-BBMOOB-1DUDD-WW  
Description: NEO-RAY CIRQUE 4-INCH DIAMETER LINEAR LED LUMINAIRE  
DOWNLIGHT - BLACK BAFFLE WITH MEDIUM OPTIC - 750 LUMENS PER FOOT  
UPLIGHT - BATWING OPTIC - 250 LUMENS PER FOOT  
Light Source: 3500K CCT, 90 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

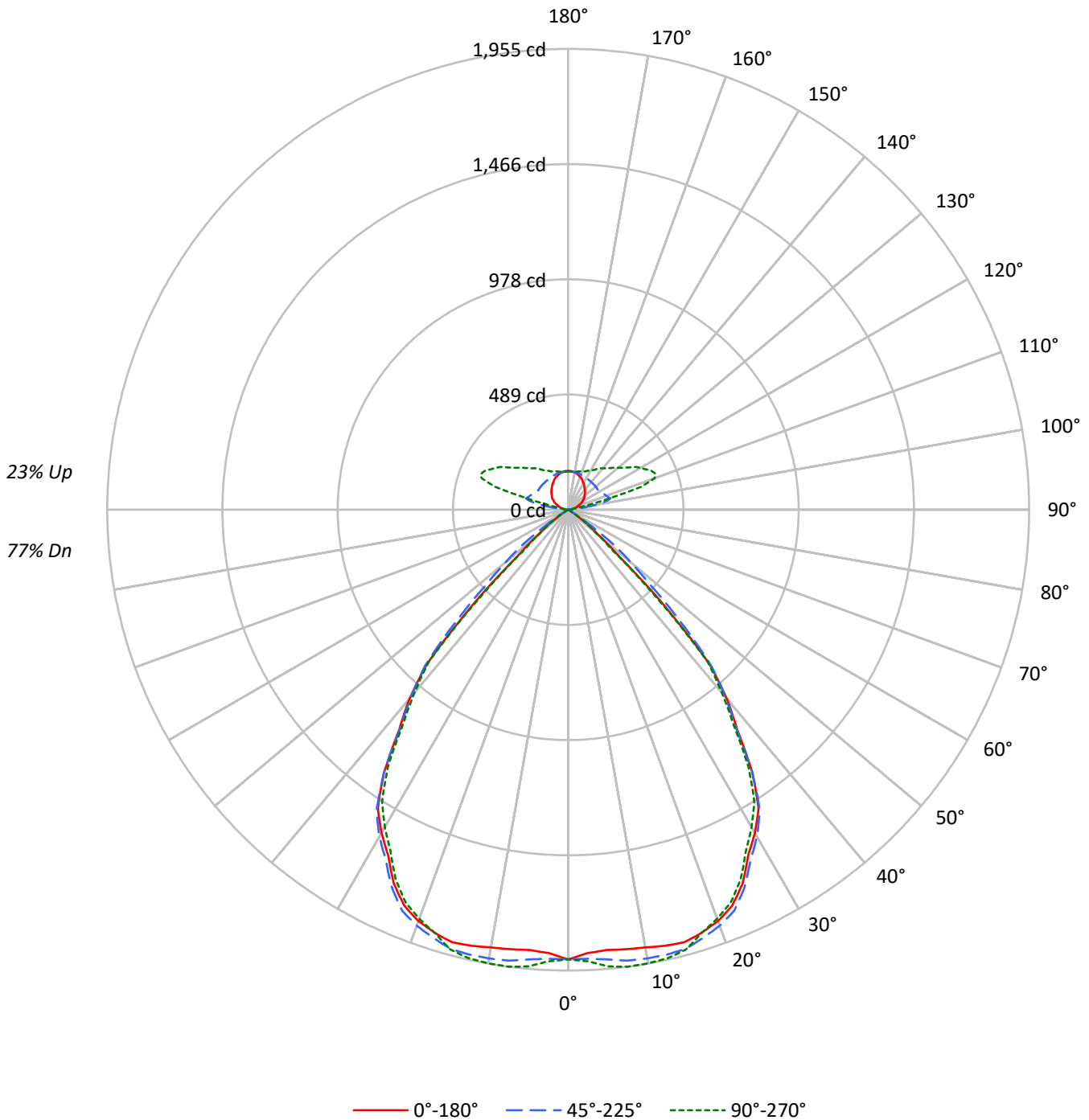
Lumens per Lamp: N/A  
Luminaire Lumens: 3809.8 lumens  
Efficiency: N/A  
Efficacy: 105.2 lumens/watt  
Spacing Criteria (0/90/45): 1.22 / 1.21 / 1.18  
Luminous Opening: Rectangular (W 0.21' x L: 4' x H: 0')  
CIE Type: Semi-Direct

Input Watts (W): 36.2  
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

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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	0
RCR																		
0	114	114	114	114	108	108	108	108	98	98	98	89	89	89	81	81	81	77
1	107	103	101	98	102	99	96	94	91	89	87	83	82	80	76	75	74	71
2	100	94	89	85	95	90	86	83	83	80	77	77	74	72	71	69	68	65
3	93	86	80	75	89	83	77	73	77	73	69	71	68	65	66	63	61	59
4	87	78	72	67	84	76	70	65	71	66	62	66	62	59	61	58	56	53
5	82	72	65	60	78	69	63	59	65	60	56	61	57	53	57	54	51	49
6	76	66	59	54	73	64	58	53	60	55	51	56	52	49	53	49	47	44
7	71	61	54	49	69	59	53	48	55	50	46	52	48	44	49	45	43	41
8	67	56	49	45	64	55	48	44	51	46	42	49	44	41	46	42	39	37
9	63	52	45	41	61	51	44	40	48	42	39	45	41	37	43	39	36	34
10	59	48	42	37	57	47	41	37	45	39	36	42	38	35	40	36	33	32

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

	0°	45°	90°
0°	24640	24640	24640
5°	24310	24831	25218
10°	24728	25353	25626
15°	25410	25789	25829
20°	25526	25813	25383
25°	24938	25213	24662
30°	23610	23877	23188
35°	21462	21462	21016
40°	17652	17477	17099
45°	10555	12405	10065
50°	3412	6913	3201
55°	1207	2315	1207
60°	78	654	39
65°	46	46	0
70°	57	0	0
75°	0	0	0
80°	0	0	0
85°	222	0	0

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 45°

Vertical Angle: 45°

Luminance: 12405 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	183.5	4.8
10°-20°	543.1	14.3
20°-30°	803.6	21.1
30°-40°	830.7	21.8
40°-50°	483.3	12.7
50°-60°	81.9	2.1
60°-70°	3.2	0.1
70°-80°	0.5	0.0
80°-90°	0.8	0.0
90°-100°	20.1	0.5
100°-110°	143.4	3.8
110°-120°	194.7	5.1
120°-130°	158.4	4.2
130°-140°	127.4	3.3
140°-150°	100.5	2.6
150°-160°	73.5	1.9
160°-170°	45.6	1.2
170°-180°	15.6	0.4
0°-30°	1530.2	40.2
0°-40°	2360.9	62.0
0°-60°	2926.1	76.8
0°-90°	2930.6	76.9
90°-120°	358.2	9.4
90°-150°	744.5	19.5
90°-180°	879.0	23.1
0°-180°	3809.8	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1908	1908	1908	1908	1908	
5°	1875	1924	1915	1920	1945	180
15°	1900	1967	1928	1918	1932	535
25°	1750	1808	1769	1716	1730	799
35°	1361	1383	1361	1327	1333	834
45°	578	672	679	656	551	447
55°	54	62	103	58	54	59
65°	2	2	2	0	0	2
75°	0	2	0	0	0	1
85°	2	2	0	0	0	1
90°	0	1	2	3	3	1
95°	8	15	8	9	11	9
105°	32	49	186	238	158	34
115°	57	69	161	334	390	56
125°	81	92	151	265	313	72
135°	101	112	152	218	250	78
145°	119	130	153	190	210	75
155°	140	145	156	172	180	64
165°	155	157	161	165	168	44
175°	164	165	164	163	162	15
180°	164	164	164	164	164	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1907.6	1907.6	1907.6	1907.6	1907.6
2.5°	1882.6	1919.9	1906.4	1907.8	1917.2
5°	1874.9	1924.4	1915.1	1920.1	1944.9
7.5°	1880.5	1930.6	1929.4	1930.8	1955.0
10°	1885.3	1937.7	1933.0	1932.0	1953.8
12.5°	1894.8	1951.9	1933.0	1930.7	1949.0
15°	1900.2	1967.2	1928.5	1918.4	1931.5
17.5°	1882.0	1956.6	1904.1	1877.1	1882.3
20°	1857.0	1932.7	1877.9	1837.8	1846.6
22.5°	1817.7	1889.9	1840.9	1791.4	1802.5
25°	1749.8	1808.0	1769.1	1715.9	1730.4
27.5°	1653.3	1699.3	1674.7	1623.1	1632.1
30°	1583.0	1620.9	1600.9	1550.3	1554.7
32.5°	1502.0	1534.0	1512.7	1469.2	1468.9
35°	1361.1	1382.9	1361.1	1327.0	1332.8
37.5°	1176.7	1193.3	1171.1	1150.6	1153.5
40°	1046.9	1060.0	1036.5	1017.0	1014.1
42.5°	884.9	921.3	898.3	871.9	875.9
45°	577.8	672.4	679.1	655.8	551.0
47.5°	291.3	394.7	472.7	358.7	257.0
50°	169.8	232.4	344.0	189.9	159.3
52.5°	111.4	137.9	240.4	120.0	105.7
55°	53.6	62.3	102.8	58.0	53.6
57.5°	18.5	28.4	45.6	29.0	20.6
60°	3.0	11.7	25.3	8.8	1.5
62.5°	1.8	3.5	15.8	1.8	0.3
65°	1.5	1.5	1.5	0.0	0.0
67.5°	1.5	1.5	0.0	0.0	0.0
70°	1.5	1.5	0.0	0.0	0.0
72.5°	1.5	1.5	0.0	0.0	0.0
75°	0.0	1.5	0.0	0.0	0.0
77.5°	0.0	1.5	0.0	0.0	0.0
80°	0.0	1.5	0.0	0.0	0.0
82.5°	0.0	1.5	0.0	0.0	0.0
85°	1.5	1.5	0.0	0.0	0.0
87.5°	1.2	1.4	0.4	0.6	0.6
90°	0.0	1.0	2.1	3.1	3.1
92.5°	2.5	3.5	4.5	6.4	7.2
95°	8.2	15.3	8.2	9.3	11.3
97.5°	14.6	29.3	60.5	17.9	15.4
100°	19.6	36.7	121.5	35.8	23.7
102.5°	24.5	42.4	164.3	94.3	51.7
105°	31.9	49.0	186.3	238.0	157.5
107.5°	39.3	52.2	177.9	346.4	324.4
110°	44.3	56.3	172.9	364.0	391.1

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**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°
112.5°	49.2	61.3	168.0	353.7	399.4
115°	56.6	68.7	160.6	333.8	390.1
117.5°	64.2	76.1	158.7	312.2	370.1
120°	70.0	81.1	155.4	295.8	356.1
122.5°	74.1	86.0	151.3	281.7	337.2
125°	81.3	92.4	151.3	264.6	312.9
127.5°	87.3	98.6	151.5	244.8	292.5
130°	90.6	102.7	152.3	231.6	276.9
132.5°	94.7	106.8	152.3	225.7	262.9
135°	100.9	111.9	152.3	217.9	250.1
137.5°	106.0	117.9	152.3	209.4	237.0
140°	110.1	121.2	152.3	204.4	229.5
142.5°	114.3	124.5	153.2	198.6	222.1
145°	119.4	129.5	153.4	189.9	210.0
147.5°	125.6	134.4	154.6	183.6	199.1
150°	129.7	137.7	155.4	179.4	192.5
152.5°	133.8	141.1	155.4	176.1	186.7
155°	140.0	145.0	156.5	172.1	180.1
157.5°	144.9	149.8	157.7	169.6	175.4
160°	148.2	152.3	158.5	167.9	172.9
162.5°	150.7	154.7	159.3	167.0	170.5
165°	155.4	157.4	160.6	164.8	167.8
167.5°	158.1	159.9	161.6	163.7	165.5
170°	160.6	161.6	161.6	163.7	164.7
172.5°	161.4	163.2	162.4	162.9	163.9
175°	163.7	164.7	163.7	162.6	161.6
177.5°	163.7	164.5	163.7	163.6	162.8
180°	163.7	163.7	163.7	163.7	163.7

(END OF REPORT)