

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: P644597

Luminaire Tested: OMN4DIP-SR4F0-100D25U940-BBMOOB-1DUDD-WW

Issue Date: 9/2/2020



Test Information

Test Method: LM-79-2019
Report Number: P644597
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-SR4F0-100D25U940-BBMOOB-1DUDD-WW
Description: NEO-RAY CIRQUE 4-INCH DIAMETER LINEAR LED LUMINAIRE
DOWNLIGHT - BLACK BAFFLE WITH MEDIUM OPTIC - 1000 LUMENS PER FOOT
UPLIGHT - BATWING OPTIC - 250 LUMENS PER FOOT
Light Source: 4000K CCT, 90 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

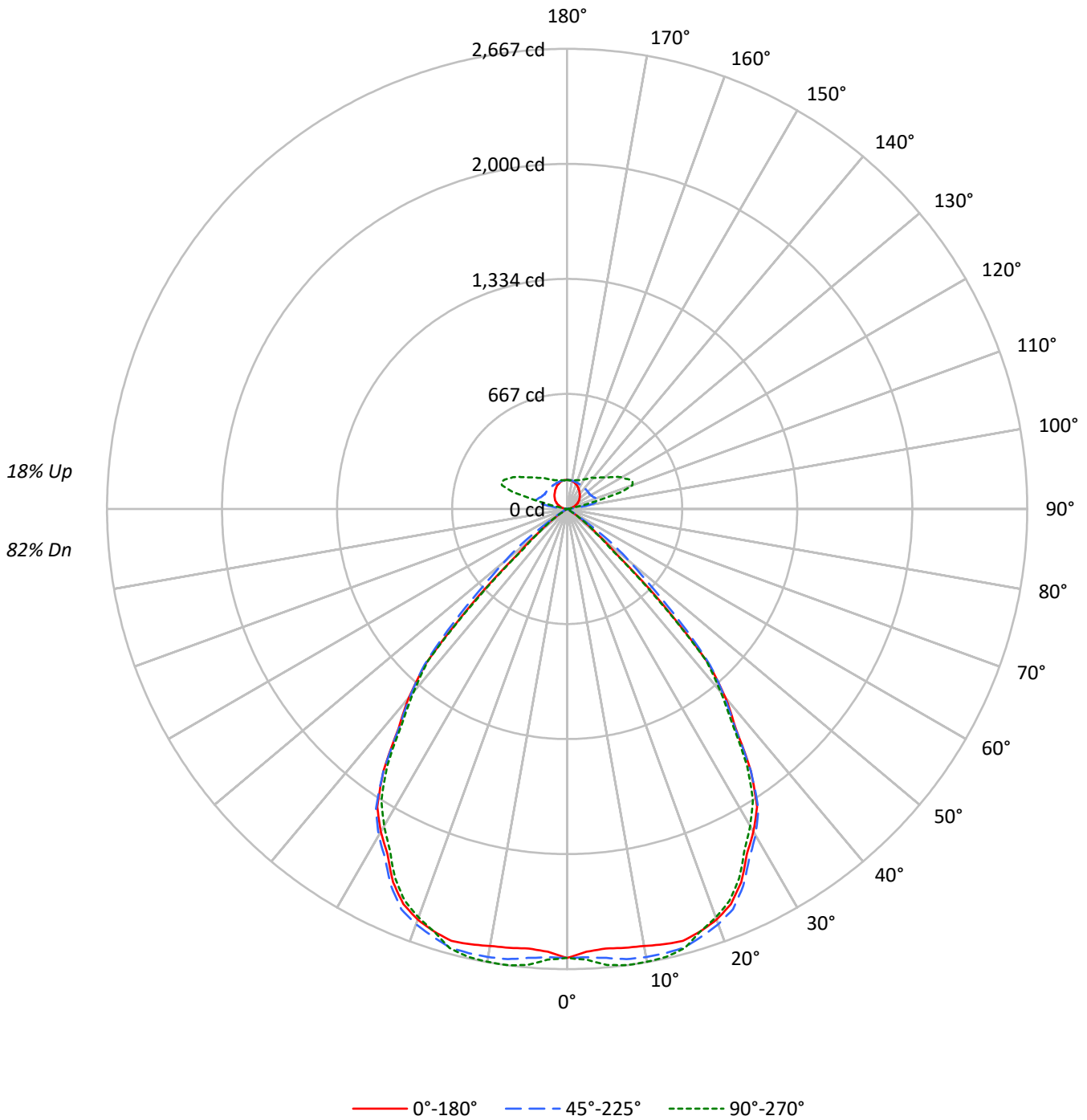
Lumens per Lamp: N/A
Luminaire Lumens: 4901.0 lumens
Efficiency: N/A
Efficacy: 105.6 lumens/watt
Spacing Criteria (0/90/45): 1.22 / 1.21 / 1.18
Luminous Opening: Rectangular (W 0.21' x L: 4' x H: 0')
CIE Type: Semi-Direct

Input Watts (W): 46.4
Input Voltage (V): 120
Input Current (A_{in}): 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			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	115	115	115	115	110	110	110	110	101	101	101	93	93	93	85	85	85	82
1	108	105	102	99	104	101	98	96	93	91	90	86	85	84	80	79	78	75
2	101	96	91	87	97	92	88	84	86	83	80	80	78	75	75	73	71	68
3	95	87	81	77	91	84	79	75	79	75	71	74	71	68	70	67	65	62
4	89	80	73	68	85	77	72	67	73	68	64	69	65	62	65	61	59	57
5	83	73	66	61	80	71	65	60	67	62	58	63	59	56	60	56	54	52
6	78	67	60	55	75	65	59	54	62	57	53	59	54	51	56	52	49	47
7	73	62	55	50	70	60	54	49	57	52	48	55	50	46	52	48	45	43
8	68	57	51	46	66	56	50	45	53	48	44	51	46	43	48	44	41	40
9	64	53	46	42	62	52	46	41	50	44	40	47	43	39	45	41	38	36
10	61	50	43	39	59	48	42	38	46	41	37	44	40	36	42	38	35	34

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	33609	33609	33609
5°	33158	33869	34396
10°	33728	34580	34953
15°	34659	35175	35230
20°	34816	35208	34621
25°	34015	34392	33639
30°	32204	32567	31629
35°	29274	29274	28665
40°	24077	23837	23325
45°	14396	16919	13728
50°	4654	9429	4367
55°	1646	3157	1646
60°	106	891	52
65°	61	61	0
70°	76	0	0
75°	0	0	0
80°	0	0	0
85°	296	0	0

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 45°

Vertical Angle: 45°

Luminance: 16919 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	250.3	5.1
10°-20°	740.7	15.1
20°-30°	1096.2	22.4
30°-40°	1133.0	23.1
40°-50°	659.2	13.5
50°-60°	111.7	2.3
60°-70°	4.4	0.1
70°-80°	0.6	0.0
80°-90°	0.9	0.0
90°-100°	20.7	0.4
100°-110°	147.4	3.0
110°-120°	200.2	4.1
120°-130°	162.9	3.3
130°-140°	131.0	2.7
140°-150°	103.3	2.1
150°-160°	75.5	1.5
160°-170°	46.9	1.0
170°-180°	16.0	0.3
0°-30°	2087.2	42.6
0°-40°	3220.2	65.7
0°-60°	3991.1	81.4
0°-90°	3997.1	81.6
90°-120°	368.3	7.5
90°-150°	765.5	15.6
90°-180°	904.0	18.4
0°-180°	4901.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2602	2602	2602	2602	2602	
5°	2557	2625	2612	2619	2653	245
15°	2592	2683	2630	2617	2634	729
25°	2387	2466	2413	2340	2360	1090
35°	1856	1886	1856	1810	1818	1137
45°	788	917	926	894	752	609
55°	73	85	140	79	73	81
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	16	8	10	12	9
105°	33	50	192	245	162	35
115°	58	71	165	343	401	58
125°	84	95	156	272	322	74
135°	104	115	157	224	257	80
145°	123	133	158	195	216	77
155°	144	149	161	177	185	66
165°	160	162	165	169	172	45
175°	168	169	168	167	166	16
180°	168	168	168	168	168	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2602.0	2602.0	2602.0	2602.0	2602.0
2.5°	2567.8	2618.7	2600.3	2602.3	2615.0
5°	2557.3	2624.8	2612.1	2619.0	2652.8
7.5°	2565.0	2633.3	2631.6	2633.6	2666.6
10°	2571.5	2643.0	2636.5	2635.2	2664.9
12.5°	2584.5	2662.4	2636.5	2633.4	2658.4
15°	2591.8	2683.2	2630.4	2616.6	2634.5
17.5°	2567.0	2668.7	2597.1	2560.3	2567.4
20°	2532.9	2636.2	2561.4	2506.8	2518.7
22.5°	2479.3	2577.8	2511.0	2443.5	2458.6
25°	2386.7	2466.1	2413.1	2340.4	2360.3
27.5°	2255.0	2317.8	2284.3	2213.9	2226.2
30°	2159.2	2210.8	2183.5	2114.6	2120.6
32.5°	2048.7	2092.4	2063.3	2004.0	2003.6
35°	1856.5	1886.3	1856.5	1810.0	1817.9
37.5°	1605.1	1627.7	1597.3	1569.4	1573.4
40°	1427.9	1445.8	1413.7	1387.2	1383.3
42.5°	1206.9	1256.6	1225.2	1189.2	1194.8
45°	788.1	917.2	926.2	894.5	751.5
47.5°	397.3	538.3	644.7	489.2	350.6
50°	231.6	317.0	469.2	259.0	217.3
52.5°	151.9	188.1	327.8	163.7	144.2
55°	73.1	85.0	140.2	79.1	73.1
57.5°	25.2	38.7	62.2	39.5	28.0
60°	4.1	16.0	34.5	12.0	2.0
62.5°	2.4	4.8	21.5	2.4	0.4
65°	2.0	2.0	2.0	0.0	0.0
67.5°	2.0	2.0	0.0	0.0	0.0
70°	2.0	2.0	0.0	0.0	0.0
72.5°	2.0	2.0	0.0	0.0	0.0
75°	0.0	2.0	0.0	0.0	0.0
77.5°	0.0	2.0	0.0	0.0	0.0
80°	0.0	2.0	0.0	0.0	0.0
82.5°	0.0	2.0	0.0	0.0	0.0
85°	2.0	2.0	0.0	0.0	0.0
87.5°	1.6	1.8	0.4	0.6	0.6
90°	0.0	1.0	2.1	3.2	3.2
92.5°	2.5	3.6	4.7	6.6	7.4
95°	8.5	15.7	8.5	9.6	11.6
97.5°	15.0	30.1	62.2	18.4	15.9
100°	20.1	37.7	124.9	36.8	24.3
102.5°	25.2	43.6	168.9	97.0	53.1
105°	32.8	50.4	191.6	244.7	161.9
107.5°	40.4	53.7	182.9	356.2	333.6
110°	45.5	57.9	177.8	374.3	402.2



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	50.6	63.0	172.7	363.7	410.7
115°	58.2	70.6	165.1	343.2	401.1
117.5°	66.0	78.3	163.2	321.0	380.6
120°	72.0	83.4	159.8	304.1	366.2
122.5°	76.2	88.4	155.6	289.6	346.7
125°	83.6	95.0	155.6	272.1	321.8
127.5°	89.8	101.3	155.8	251.7	300.8
130°	93.1	105.6	156.6	238.1	284.7
132.5°	97.4	109.8	156.6	232.0	270.3
135°	103.7	115.1	156.6	224.1	257.2
137.5°	109.0	121.2	156.6	215.3	243.6
140°	113.2	124.6	156.6	210.2	236.0
142.5°	117.5	128.0	157.5	204.2	228.4
145°	122.8	133.1	157.7	195.2	215.9
147.5°	129.1	138.2	159.0	188.8	204.7
150°	133.4	141.6	159.8	184.5	197.9
152.5°	137.6	145.0	159.8	181.0	192.0
155°	143.9	149.1	160.9	176.9	185.2
157.5°	149.0	154.0	162.1	174.3	180.4
160°	152.4	156.5	163.0	172.6	177.8
162.5°	155.0	159.1	163.8	171.8	175.3
165°	159.8	161.9	165.1	169.4	172.5
167.5°	162.6	164.4	166.2	168.3	170.2
170°	165.1	166.1	166.2	168.3	169.3
172.5°	166.0	167.8	167.0	167.5	168.5
175°	168.3	169.3	168.3	167.2	166.2
177.5°	168.3	169.1	168.3	168.3	167.4
180°	168.3	168.3	168.3	168.3	168.3

(END OF REPORT)