

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: P644986

Luminaire Tested: OMN4DIP-SR4F0-50D50U935-WBMOOB-1DUDD-WW

Issue Date: 9/2/2020



Test Information

Test Method: LM-79-2019
Report Number: P644986
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-SR4F0-50D50U935-WBMOOB-1DUDD-WW
Description: NEO-RAY CIRQUE 4-INCH DIAMETER LINEAR LED LUMINAIRE
DOWNLIGHT - WHITE BAFFLE WITH MEDIUM OPTIC - 500 LUMENS PER FOOT
UPLIGHT - BATWING OPTIC - 500 LUMENS PER FOOT
Light Source: 3500K CCT, 90 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

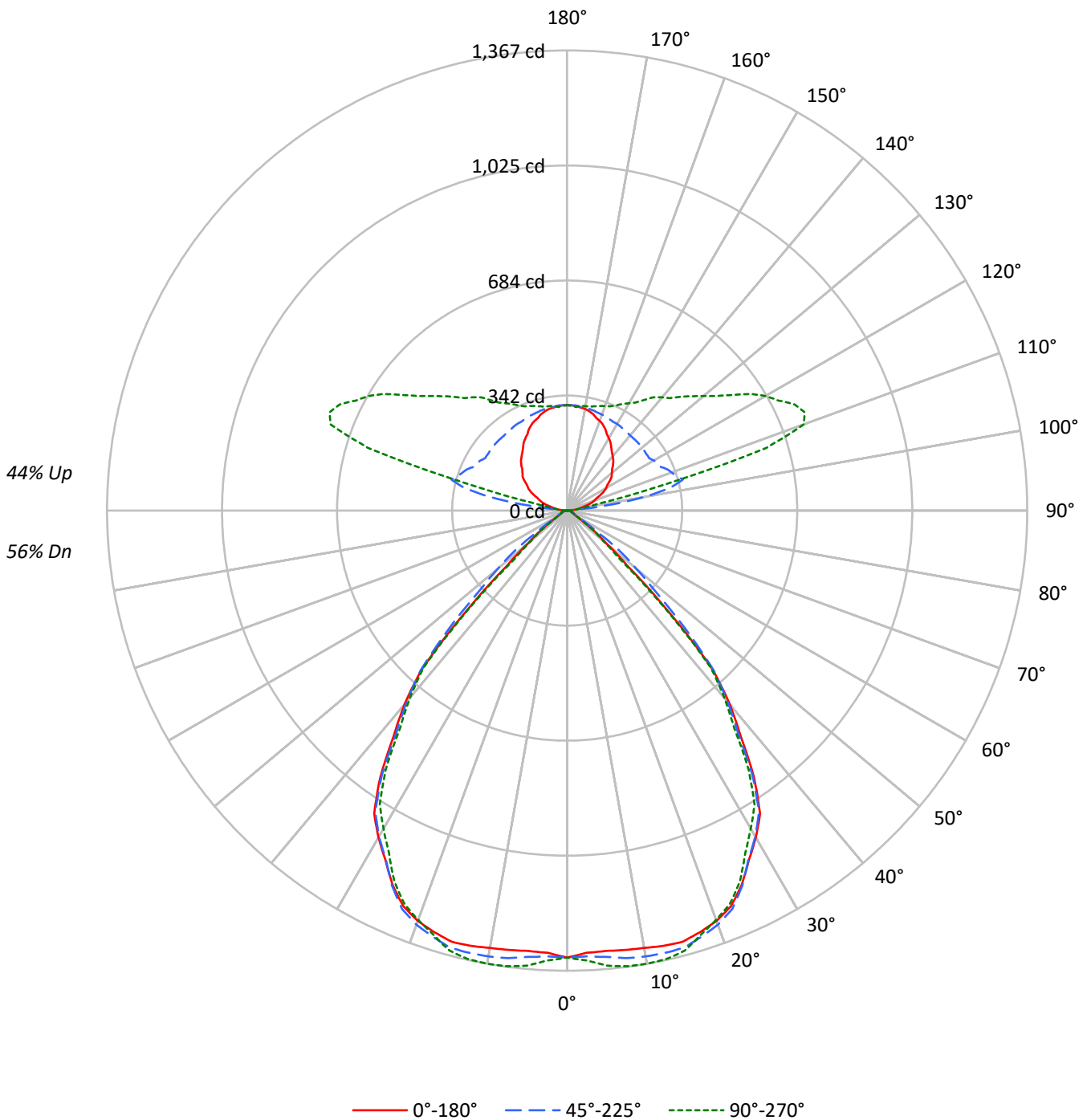
Lumens per Lamp: N/A
Luminaire Lumens: 3817.0 lumens
Efficiency: N/A
Efficacy: 116.4 lumens/watt
Spacing Criteria (0/90/45): 1.24 / 1.21 / 1.19
Luminous Opening: Rectangular (W 0.21' x L: 4' x H: 0')
CIE Type: General Diffuse

Input Watts (W): 32.8
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									
RC	80									70									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	101	101	101	101	87	87	87	74	74	74	62	62	62	56																			
1	101	97	94	91	94	91	88	86	79	77	75	68	66	65	57	57	56	51																			
2	94	88	83	78	87	82	78	74	72	68	66	62	60	58	53	52	50	46																			
3	87	79	73	68	81	74	69	64	65	61	58	57	54	52	49	47	45	42																			
4	81	71	65	59	75	67	61	57	60	55	51	52	49	46	45	43	41	38																			
5	75	65	58	53	70	61	55	50	54	50	46	48	44	42	42	39	37	34																			
6	70	59	52	47	65	56	50	45	50	45	41	44	40	38	39	36	34	31																			
7	65	54	47	42	61	51	45	40	46	41	37	41	37	34	36	33	31	29																			
8	61	50	43	38	57	47	41	36	42	37	34	38	34	31	34	31	28	26																			
9	57	46	39	34	53	44	37	33	39	34	31	35	31	28	31	28	26	24																			
10	53	42	36	31	50	40	34	30	36	32	28	33	29	26	29	26	24	22																			

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	17153	17153	17153
5°	17024	17258	17595
10°	17300	17641	17930
15°	17732	17972	18093
20°	17828	17993	17787
25°	17487	17530	17316
30°	16720	16675	16272
35°	15264	15138	14822
40°	12680	12494	12258
45°	7964	9060	7599
50°	3054	5365	2833
55°	1441	2252	1464
60°	698	1137	620
65°	642	672	581
70°	642	642	566
75°	649	649	549
80°	669	595	521
85°	741	593	445

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 45°
 Vertical Angle: 45°
 Luminance: 9060 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	127.9	3.4
10°-20°	378.3	9.9
20°-30°	562.0	14.7
30°-40°	588.2	15.4
40°-50°	356.3	9.3
50°-60°	82.2	2.2
60°-70°	22.6	0.6
70°-80°	13.2	0.3
80°-90°	5.3	0.1
90°-100°	38.5	1.0
100°-110°	274.1	7.2
110°-120°	372.2	9.8
120°-130°	302.9	7.9
130°-140°	243.6	6.4
140°-150°	192.1	5.0
150°-160°	140.4	3.7
160°-170°	87.2	2.3
170°-180°	29.7	0.8
0°-30°	1068.3	28.0
0°-40°	1656.5	43.4
0°-60°	2095.0	54.9
0°-90°	2136.1	56.0
90°-120°	684.8	17.9
90°-150°	1423.4	37.3
90°-180°	1681.0	44.0
0°-180°	3817.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1328	1328	1328	1328	1328	
5°	1313	1343	1331	1336	1357	126
15°	1326	1366	1344	1333	1353	373
25°	1227	1263	1230	1198	1215	562
35°	968	983	960	938	940	595
45°	436	496	496	479	416	335
55°	64	73	100	69	65	66
65°	21	22	22	20	19	21
75°	13	13	13	12	11	14
85°	5	5	4	4	3	5
90°	0	2	4	6	6	1
95°	16	29	16	18	22	18
105°	61	94	356	455	301	64
115°	108	131	307	638	746	107
125°	156	177	289	506	598	138
135°	193	214	291	417	478	148
145°	228	248	293	363	402	143
155°	268	277	299	329	344	123
165°	297	301	307	315	321	83
175°	313	315	313	311	309	30
180°	313	313	313	313	313	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1328.0	1328.0	1328.0	1328.0	1328.0
2.5°	1315.2	1338.7	1325.6	1326.6	1337.6
5°	1313.0	1343.3	1331.0	1336.5	1357.0
7.5°	1316.6	1348.3	1341.0	1342.9	1365.4
10°	1319.0	1352.2	1345.0	1344.5	1367.0
12.5°	1324.6	1359.4	1345.8	1342.9	1364.6
15°	1326.0	1366.1	1344.0	1333.4	1353.0
17.5°	1313.0	1357.2	1327.4	1305.6	1321.2
20°	1297.0	1342.0	1309.0	1278.4	1294.0
22.5°	1272.2	1316.4	1281.0	1248.0	1264.4
25°	1227.0	1263.2	1230.0	1198.4	1215.0
27.5°	1169.8	1195.2	1166.8	1136.8	1146.2
30°	1121.0	1146.4	1118.0	1087.1	1091.0
32.5°	1066.6	1088.1	1060.4	1032.7	1035.8
35°	968.0	982.7	960.0	938.0	940.0
37.5°	848.0	850.0	834.6	814.6	815.0
40°	752.0	757.9	741.0	725.0	727.0
42.5°	637.6	660.7	644.2	629.8	630.2
45°	436.0	495.6	496.0	478.6	416.0
47.5°	240.8	309.8	354.2	274.7	207.4
50°	152.0	196.0	267.0	160.6	141.0
52.5°	108.8	128.6	195.0	113.6	103.4
55°	64.0	72.8	100.0	68.9	65.0
57.5°	39.0	46.6	58.4	46.0	39.2
60°	27.0	33.8	44.0	30.8	24.0
62.5°	23.8	26.0	34.4	24.6	22.4
65°	21.0	22.0	22.0	20.0	19.0
67.5°	18.6	19.6	18.6	17.6	16.6
70°	17.0	18.0	17.0	16.0	15.0
72.5°	15.4	16.4	15.4	14.4	13.4
75°	13.0	13.0	13.0	12.0	11.0
77.5°	10.6	10.6	10.4	9.6	8.6
80°	9.0	9.0	8.0	8.0	7.0
82.5°	7.4	7.4	6.4	6.4	5.4
85°	5.0	5.0	4.0	4.0	3.0
87.5°	2.4	2.8	2.4	2.8	2.0
90°	0.0	1.9	3.9	5.9	5.9
92.5°	4.7	6.6	8.7	12.2	13.8
95°	15.7	29.2	15.7	17.8	21.6
97.5°	27.9	56.0	115.7	34.1	29.5
100°	37.4	70.1	232.2	68.4	45.3
102.5°	46.8	81.1	314.1	180.4	98.8
105°	61.0	93.7	356.2	455.0	301.1
107.5°	75.2	99.8	340.1	662.3	620.3
110°	84.6	107.7	330.6	695.9	747.8



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	94.1	117.2	321.2	676.2	763.6
115°	108.2	131.3	307.0	638.1	745.9
117.5°	122.8	145.5	303.5	596.9	707.7
120°	133.8	155.0	297.2	565.5	680.9
122.5°	141.7	164.4	289.3	538.5	644.7
125°	155.5	176.6	289.3	505.9	598.3
127.5°	166.9	188.4	289.7	468.1	559.3
130°	173.2	196.3	291.3	442.8	529.4
132.5°	181.1	204.1	291.3	431.4	502.6
135°	192.9	214.0	291.3	416.6	478.2
137.5°	202.7	225.4	291.3	400.3	453.0
140°	210.6	231.7	291.3	390.8	438.9
142.5°	218.4	238.1	292.8	379.7	424.7
145°	228.3	247.5	293.2	363.0	401.5
147.5°	240.1	257.0	295.6	351.0	380.6
150°	248.0	263.4	297.2	343.0	368.0
152.5°	255.8	269.7	297.2	336.6	357.0
155°	267.6	277.3	299.1	329.0	344.4
157.5°	277.1	286.3	301.5	324.2	335.3
160°	283.4	291.1	303.1	321.0	330.6
162.5°	288.1	295.8	304.6	319.4	325.9
165°	297.2	301.0	307.0	315.0	320.8
167.5°	302.3	305.7	309.0	313.0	316.5
170°	307.0	308.9	309.0	313.0	314.9
172.5°	308.6	312.0	310.5	311.4	313.3
175°	312.9	314.8	312.9	310.9	309.0
177.5°	312.9	314.4	312.9	312.9	311.3
180°	312.9	312.9	312.9	312.9	312.9

(END OF REPORT)