

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: P644872

Luminaire Tested: OMN4DIP-SR4F0-50D100U940-WBMOOB-1DUDD-WW

Issue Date: 9/2/2020



Test Information

Test Method: LM-79-2019
Report Number: P644872
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-SR4F0-50D100U940-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 - 1000 LUMENS PER FOOT
Light Source: 4000K CCT, 90 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

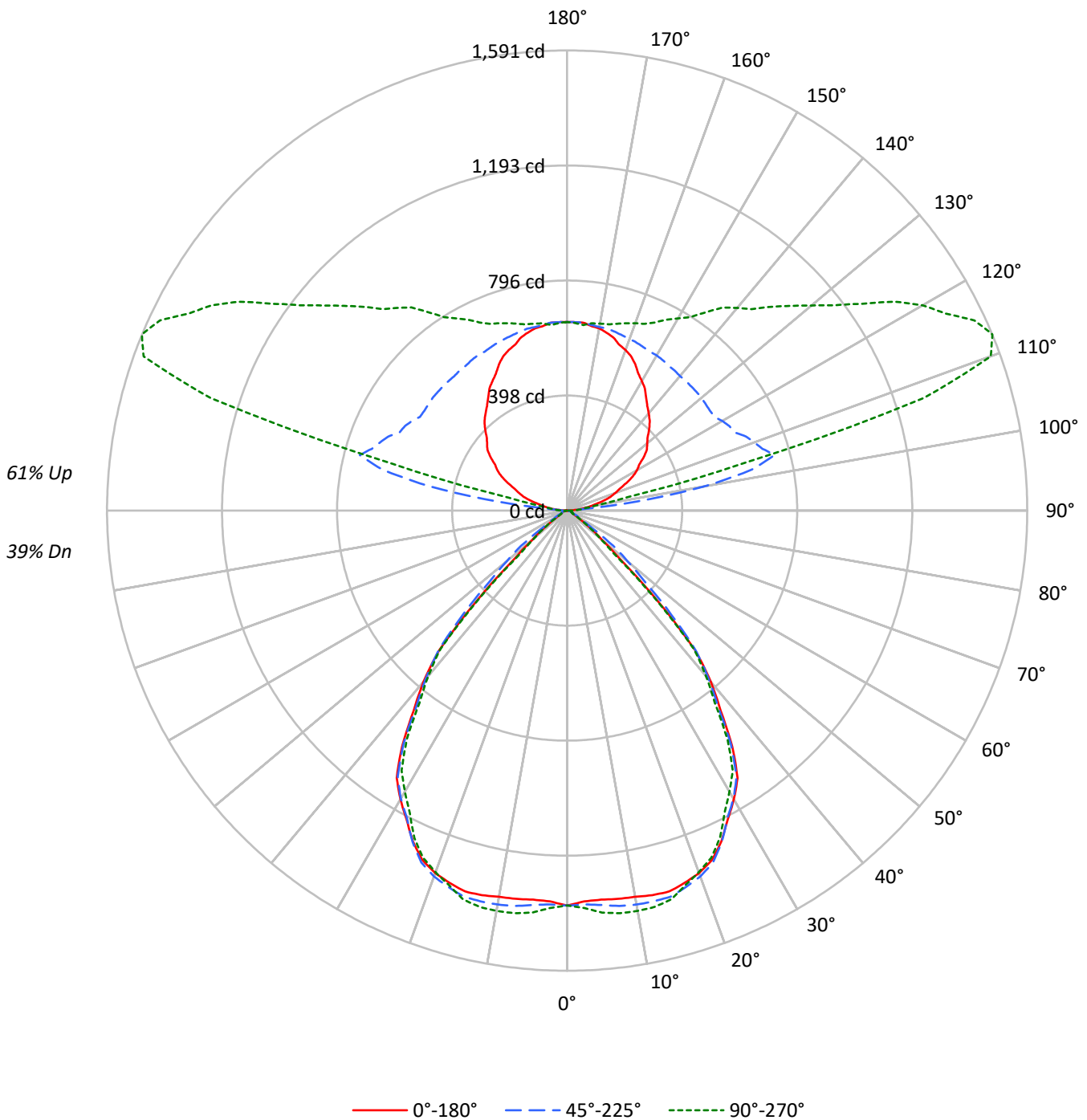
Lumens per Lamp: N/A
Luminaire Lumens: 5700.1 lumens
Efficiency: N/A
Efficacy: 120.8 lumens/watt
Spacing Criteria (0/90/45): 1.24 / 1.21 / 1.19
Luminous Opening: Rectangular (W 0.21' x L: 4' x H: 0')
CIE Type: Semi-Indirect

Input Watts (W): 47.2
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	
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	104	104	104	104	95	95	95	95	77	77	77	61	61	61	46	46	46	39				
1	97	93	90	87	88	85	82	79	69	68	66	55	54	53	42	42	41	35				
2	89	83	78	73	81	76	71	68	63	59	57	50	48	47	39	38	37	32				
3	82	74	68	63	75	68	63	58	56	53	50	46	43	41	36	34	33	29				
4	76	67	60	54	69	61	55	51	51	47	44	42	39	37	33	31	30	26				
5	70	60	53	48	64	55	49	44	47	42	39	38	35	33	31	29	27	24				
6	65	54	47	42	59	50	44	39	42	38	34	35	32	29	28	26	25	22				
7	61	49	42	37	55	46	40	35	39	34	31	32	29	27	26	24	22	20				
8	56	45	38	33	52	42	36	31	36	31	28	30	27	24	24	22	20	18				
9	53	41	35	30	48	39	33	28	33	28	25	28	24	22	23	20	19	17				
10	49	38	32	27	45	36	30	26	31	26	23	26	22	20	21	19	17	15				

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	17638	17638	17638
5°	17505	17745	18092
10°	17788	18139	18436
15°	18232	18481	18604
20°	18331	18502	18289
25°	17980	18025	17805
30°	17192	17146	16732
35°	15694	15565	15240
40°	13037	12847	12604
45°	8189	9316	7813
50°	3141	5516	2914
55°	1482	2315	1504
60°	718	1168	638
65°	660	691	596
70°	661	661	582
75°	669	669	564
80°	692	610	536
85°	756	608	459

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 45°

Vertical Angle: 45°

Luminance: 9316 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	131.5	2.3
10°-20°	389.0	6.8
20°-30°	577.9	10.1
30°-40°	604.8	10.6
40°-50°	366.4	6.4
50°-60°	84.5	1.5
60°-70°	23.2	0.4
70°-80°	13.6	0.2
80°-90°	6.2	0.1
90°-100°	80.2	1.4
100°-110°	571.3	10.0
110°-120°	775.6	13.6
120°-130°	631.3	11.1
130°-140°	507.7	8.9
140°-150°	400.3	7.0
150°-160°	292.7	5.1
160°-170°	181.8	3.2
170°-180°	62.0	1.1
0°-30°	1098.4	19.3
0°-40°	1703.3	29.9
0°-60°	2154.2	37.8
0°-90°	2197.2	38.5
90°-120°	1427.1	25.0
90°-150°	2966.4	52.0
90°-180°	3503.0	61.5
0°-180°	5700.1	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1366	1366	1366	1366	1366	
5°	1350	1381	1369	1374	1395	129
15°	1363	1405	1382	1371	1391	384
25°	1262	1299	1265	1232	1249	578
35°	995	1010	987	964	966	612
45°	448	510	510	492	428	344
55°	66	75	103	71	67	68
65°	22	23	23	20	20	22
75°	13	13	13	12	11	14
85°	5	5	4	4	3	5
90°	0	4	8	12	12	2
95°	33	61	33	37	45	37
105°	127	195	742	948	628	134
115°	226	274	640	1330	1554	224
125°	324	368	603	1054	1247	288
135°	402	446	607	868	997	309
145°	476	516	611	756	837	299
155°	558	578	623	686	718	256
165°	619	627	640	656	668	174
175°	652	656	652	648	644	62
180°	652	652	652	652	652	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1365.5	1365.5	1365.5	1365.5	1365.5
2.5°	1352.3	1376.5	1363.0	1364.1	1375.4
5°	1350.1	1381.2	1368.6	1374.2	1395.3
7.5°	1353.8	1386.4	1378.9	1380.8	1404.0
10°	1356.2	1390.4	1383.0	1382.5	1405.6
12.5°	1362.0	1397.8	1383.8	1380.8	1403.1
15°	1363.4	1404.7	1382.0	1371.1	1391.2
17.5°	1350.1	1395.5	1364.9	1342.4	1358.5
20°	1333.6	1379.9	1346.0	1314.5	1330.5
22.5°	1308.1	1353.6	1317.2	1283.2	1300.1
25°	1261.6	1298.8	1264.7	1232.2	1249.3
27.5°	1202.8	1229.0	1199.7	1168.9	1178.6
30°	1152.7	1178.8	1149.6	1117.8	1121.8
32.5°	1096.7	1118.8	1090.3	1061.8	1065.1
35°	995.3	1010.4	987.1	964.5	966.5
37.5°	871.9	874.0	858.2	837.6	838.0
40°	773.2	779.3	761.9	745.5	747.5
42.5°	655.6	679.3	662.4	647.6	648.0
45°	448.3	509.6	510.0	492.1	427.7
47.5°	247.6	318.6	364.2	282.4	213.3
50°	156.3	201.5	274.5	165.1	145.0
52.5°	111.9	132.2	200.5	116.8	106.3
55°	65.8	74.9	102.8	70.9	66.8
57.5°	40.1	47.9	60.0	47.3	40.3
60°	27.8	34.8	45.2	31.7	24.7
62.5°	24.5	26.7	35.4	25.2	23.0
65°	21.6	22.6	22.6	20.5	19.5
67.5°	19.1	20.1	19.1	18.1	17.1
70°	17.5	18.5	17.5	16.4	15.4
72.5°	15.8	16.8	15.8	14.8	13.8
75°	13.4	13.4	13.4	12.3	11.3
77.5°	10.9	10.9	10.7	9.8	8.8
80°	9.3	9.3	8.2	8.2	7.2
82.5°	7.6	7.6	6.6	6.6	5.6
85°	5.1	5.1	4.1	4.1	3.1
87.5°	2.5	3.3	3.3	4.1	3.3
90°	0.0	4.0	8.2	12.3	12.3
92.5°	9.8	13.9	18.0	25.5	28.7
95°	32.8	60.9	32.8	37.1	45.1
97.5°	58.2	116.8	241.2	71.1	61.5
100°	77.9	146.1	483.9	142.5	94.3
102.5°	97.6	169.0	654.6	375.9	205.9
105°	127.1	195.3	742.3	948.3	627.5
107.5°	156.7	208.0	708.7	1380.1	1292.7
110°	176.4	224.5	689.0	1450.2	1558.5



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	196.0	244.2	669.3	1409.2	1591.3
115°	225.6	273.7	639.8	1329.8	1554.4
117.5°	255.9	303.2	632.4	1243.8	1474.8
120°	278.9	323.0	619.3	1178.4	1419.0
122.5°	295.3	342.6	602.9	1122.2	1343.6
125°	324.0	368.1	602.9	1054.3	1246.8
127.5°	347.8	392.7	603.7	975.5	1165.6
130°	360.9	409.0	607.0	922.8	1103.2
132.5°	377.3	425.4	607.0	899.1	1047.5
135°	401.9	446.0	607.0	868.3	996.6
137.5°	422.4	469.7	607.0	834.2	944.1
140°	438.8	482.9	607.0	814.3	914.6
142.5°	455.2	496.1	610.3	791.2	885.1
145°	475.7	515.8	611.1	756.5	836.7
147.5°	500.4	535.6	616.0	731.4	793.2
150°	516.8	548.8	619.3	714.8	766.9
152.5°	533.2	562.0	619.3	701.5	744.0
155°	557.8	577.8	623.4	685.6	717.7
157.5°	577.5	596.7	628.3	675.6	698.9
160°	590.6	606.6	631.6	669.0	689.0
162.5°	600.4	616.5	634.9	665.5	679.2
165°	619.3	627.3	639.8	656.5	668.5
167.5°	630.0	637.2	643.9	652.3	659.5
170°	639.8	643.8	643.9	652.2	656.2
172.5°	643.1	650.3	647.2	648.9	652.9
175°	652.1	656.1	652.1	647.9	643.9
177.5°	652.1	655.3	652.1	652.0	648.8
180°	652.1	652.1	652.1	652.1	652.1

(END OF REPORT)