

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: P644932

Luminaire Tested: OMN4DIP-SR4F0-50D150U940-WBMOOB-1DUDD-WW

Issue Date: 9/2/2020



Test Information

Test Method: LM-79-2019
Report Number: P644932
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-SR4F0-50D150U940-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 - 1500 LUMENS PER FOOT
Light Source: 4000K CCT, 90 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

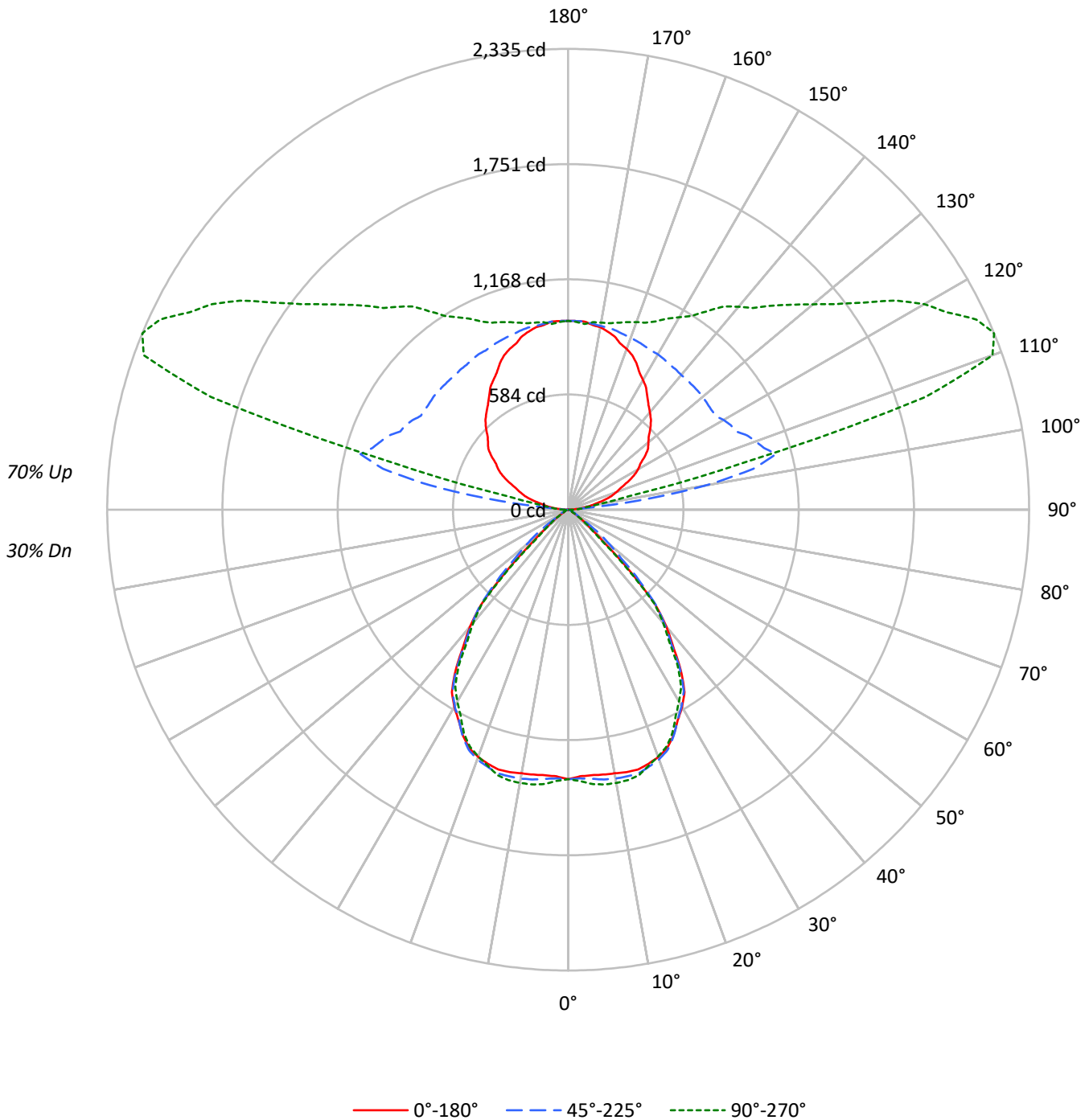
Lumens per Lamp: N/A
Luminaire Lumens: 7338.0 lumens
Efficiency: N/A
Efficacy: 109.9 lumens/watt
Spacing Criteria (0/90/45): 1.24 / 1.21 / 1.19
Luminous Opening: Rectangular (W 0.21' x L: 4' x H: 0')
CIE Type: Semi-Indirect

Input Watts (W): 66.8
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				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	102	102	102	102	92	92	92	92	72	72	72	54	54	54	38	38	38	30
1	94	91	87	84	85	82	79	76	65	63	61	49	48	47	35	34	34	27
2	87	80	75	71	78	73	68	64	58	55	52	45	43	41	32	31	30	25
3	80	72	65	60	72	65	59	55	52	48	45	40	38	36	30	28	27	22
4	74	64	57	52	66	58	52	48	47	43	40	37	34	32	27	26	24	20
5	68	58	50	45	61	52	46	42	43	38	35	34	31	28	25	23	22	18
6	63	52	45	40	57	47	41	37	39	34	31	31	28	25	23	21	20	17
7	58	47	40	35	53	43	37	32	35	31	28	28	25	23	21	20	18	15
8	54	43	36	31	49	39	33	29	32	28	25	26	23	21	20	18	17	14
9	51	39	32	28	46	36	30	26	30	25	22	24	21	19	18	17	15	13
10	47	36	29	25	43	33	27	23	28	23	20	22	19	17	17	15	14	12

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	1.8
10°-20°	389.0	5.3
20°-30°	577.9	7.9
30°-40°	604.8	8.2
40°-50°	366.4	5.0
50°-60°	84.5	1.2
60°-70°	23.2	0.3
70°-80°	13.6	0.2
80°-90°	6.9	0.1
90°-100°	117.7	1.6
100°-110°	838.3	11.4
110°-120°	1138.2	15.5
120°-130°	926.4	12.6
130°-140°	745.1	10.2
140°-150°	587.4	8.0
150°-160°	429.5	5.9
160°-170°	266.8	3.6
170°-180°	91.0	1.2
0°-30°	1098.4	15.0
0°-40°	1703.3	23.2
0°-60°	2154.2	29.4
0°-90°	2197.8	30.0
90°-120°	2094.2	28.5
90°-150°	4353.0	59.3
90°-180°	5140.0	70.0
0°-180°	7338.0	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	6	12	18	18	2
95°	48	89	48	54	66	54
105°	187	287	1089	1392	921	197
115°	331	402	939	1951	2281	329
125°	475	540	885	1547	1830	422
135°	590	654	891	1274	1462	454
145°	698	757	897	1110	1228	438
155°	818	848	915	1006	1053	376
165°	909	920	939	963	981	255
175°	957	963	957	951	945	90
180°	957	957	957	957	957	



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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	3.6	4.1	5.2	4.4
90°	0.0	5.9	12.0	18.1	18.1
92.5°	14.4	20.3	26.5	37.4	42.1
95°	48.1	89.3	48.1	54.4	66.2
97.5°	85.5	171.4	353.9	104.4	90.3
100°	114.3	214.4	710.2	209.0	138.4
102.5°	143.2	248.0	960.5	551.6	302.1
105°	186.6	286.6	1089.3	1391.5	920.8
107.5°	229.9	305.2	1039.9	2025.2	1896.9
110°	258.8	329.4	1011.1	2128.0	2286.9



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	287.7	358.3	982.2	2067.9	2335.1
115°	331.0	401.6	938.8	1951.4	2280.9
117.5°	375.5	445.0	928.0	1825.2	2164.2
120°	409.2	474.0	908.8	1729.2	2082.3
122.5°	433.3	502.7	884.7	1646.7	1971.6
125°	475.4	540.2	884.7	1547.1	1829.5
127.5°	510.3	576.3	885.9	1431.5	1710.4
130°	529.6	600.2	890.7	1354.1	1618.9
132.5°	553.7	624.3	890.7	1319.3	1537.1
135°	589.8	654.5	890.7	1274.1	1462.4
137.5°	619.9	689.3	890.7	1224.2	1385.4
140°	643.9	708.7	890.7	1195.0	1342.1
142.5°	668.0	728.0	895.5	1161.0	1298.7
145°	698.1	757.0	896.7	1110.0	1227.7
147.5°	734.2	786.0	903.9	1073.3	1163.9
150°	758.3	805.4	908.8	1048.9	1125.4
152.5°	782.4	824.7	908.8	1029.3	1091.7
155°	818.5	847.9	914.8	1006.1	1053.2
157.5°	847.4	875.6	922.0	991.4	1025.5
160°	866.6	890.2	926.8	981.6	1011.1
162.5°	881.1	904.6	931.6	976.6	996.6
165°	908.8	920.5	938.8	963.3	981.0
167.5°	924.4	935.0	944.9	957.1	967.7
170°	938.8	944.7	944.9	957.0	962.9
172.5°	943.7	954.2	949.7	952.2	958.1
175°	956.9	962.8	956.9	950.7	944.9
177.5°	956.9	961.6	956.9	956.8	952.1
180°	956.9	956.9	956.9	956.9	956.9

(END OF REPORT)