

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: P644902

Luminaire Tested: OMN4DIP-SR4F0-50D125U940-WBMOOB-1DUDD-WW

Issue Date: 9/2/2020



Test Information

Test Method: LM-79-2019
Report Number: P644902
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-SR4F0-50D125U940-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 - 1250 LUMENS PER FOOT
Light Source: 4000K CCT, 90 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

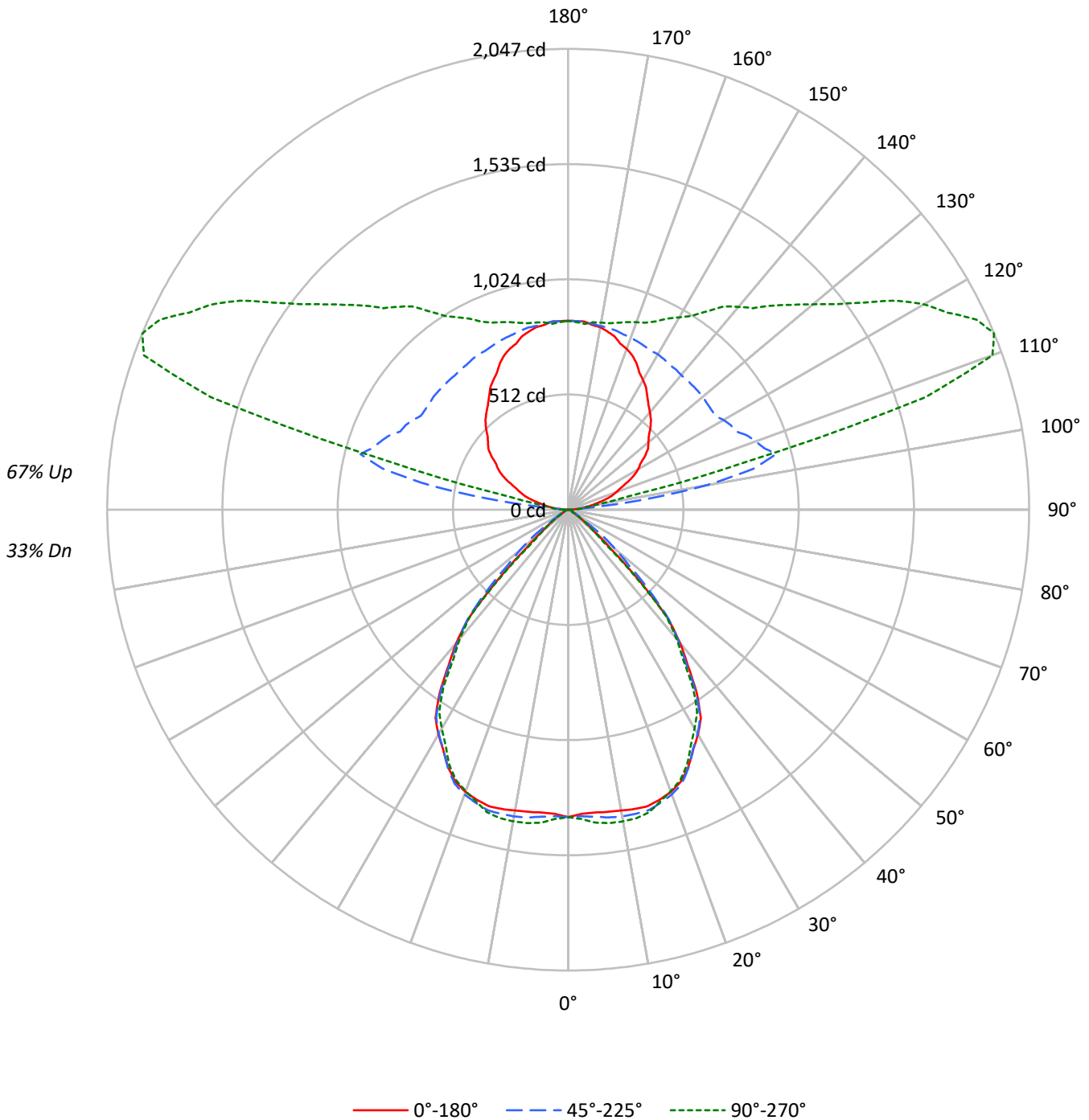
Lumens per Lamp: N/A
Luminaire Lumens: 6702.9 lumens
Efficiency: N/A
Efficacy: 118.8 lumens/watt
Spacing Criteria (0/90/45): 1.24 / 1.21 / 1.19
Luminous Opening: Rectangular (W 0.21' x L: 4' x H: 0')
CIE Type: Semi-Indirect

Input Watts (W): 56.4
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	
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	103	103	103	103	93	93	93	93	74	74	74	56	56	56	40	40	40	33				
1	95	91	88	85	86	83	80	77	66	64	63	51	50	49	37	37	36	30				
2	88	81	76	71	79	74	69	65	59	56	54	46	45	43	34	33	32	27				
3	81	72	66	61	73	66	61	56	54	50	47	42	40	38	32	30	29	24				
4	74	65	58	53	67	59	53	49	48	44	41	38	36	33	29	28	26	22				
5	69	58	51	46	62	53	47	43	44	39	36	35	32	30	27	25	24	20				
6	64	53	46	40	58	48	42	38	40	35	32	32	29	27	25	23	21	18				
7	59	48	41	36	53	44	38	33	37	32	29	30	26	24	23	21	19	17				
8	55	44	37	32	50	40	34	30	34	29	26	27	24	22	21	19	18	15				
9	51	40	33	29	46	37	31	27	31	26	23	25	22	20	20	18	16	14				
10	48	37	30	26	44	34	28	24	29	24	21	23	20	18	19	16	15	13				

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	2.0
10°-20°	389.0	5.8
20°-30°	577.9	8.6
30°-40°	604.8	9.0
40°-50°	366.4	5.5
50°-60°	84.5	1.3
60°-70°	23.2	0.3
70°-80°	13.6	0.2
80°-90°	6.6	0.1
90°-100°	103.1	1.5
100°-110°	734.8	11.0
110°-120°	997.6	14.9
120°-130°	811.9	12.1
130°-140°	653.0	9.7
140°-150°	514.8	7.7
150°-160°	376.4	5.6
160°-170°	233.8	3.5
170°-180°	79.7	1.2
0°-30°	1098.4	16.4
0°-40°	1703.3	25.4
0°-60°	2154.2	32.1
0°-90°	2197.6	32.8
90°-120°	1835.5	27.4
90°-150°	3815.3	56.9
90°-180°	4505.0	67.2
0°-180°	6702.9	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	5	10	16	16	2
95°	42	78	42	48	58	47
105°	164	251	955	1220	807	172
115°	290	352	823	1710	1999	288
125°	417	473	775	1356	1604	370
135°	517	574	781	1117	1282	398
145°	612	664	786	973	1076	384
155°	717	743	802	882	923	329
165°	796	807	823	844	860	224
175°	839	844	839	833	828	79
180°	839	839	839	839	839	



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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	3.5	3.8	4.8	4.0
90°	0.0	5.2	10.5	15.8	15.8
92.5°	12.7	17.8	23.2	32.8	36.9
95°	42.2	78.3	42.2	47.7	58.0
97.5°	74.9	150.2	310.2	91.5	79.1
100°	100.2	187.9	622.4	183.2	121.3
102.5°	125.5	217.3	841.9	483.5	264.8
105°	163.5	251.2	954.8	1219.7	807.1
107.5°	201.5	267.5	911.5	1775.1	1662.6
110°	226.8	288.7	886.2	1865.2	2004.5



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	252.1	314.0	860.9	1812.5	2046.7
115°	290.1	352.0	822.9	1710.4	1999.2
117.5°	329.2	390.0	813.4	1599.8	1896.8
120°	358.7	415.4	796.5	1515.6	1825.1
122.5°	379.8	440.7	775.4	1443.3	1728.1
125°	416.7	473.4	775.4	1356.0	1603.6
127.5°	447.3	505.1	776.5	1254.6	1499.1
130°	464.2	526.1	780.7	1186.8	1418.9
132.5°	485.3	547.2	780.7	1156.4	1347.2
135°	516.9	573.7	780.7	1116.8	1281.8
137.5°	543.3	604.2	780.7	1073.0	1214.3
140°	564.4	621.1	780.7	1047.4	1176.3
142.5°	585.5	638.1	784.9	1017.6	1138.3
145°	611.9	663.5	786.0	972.9	1076.1
147.5°	643.5	688.9	792.3	940.7	1020.2
150°	664.6	705.9	796.5	919.4	986.4
152.5°	685.7	722.9	796.5	902.2	956.9
155°	717.4	743.2	801.8	881.8	923.1
157.5°	742.7	767.5	808.1	868.9	898.8
160°	759.6	780.2	812.3	860.4	886.2
162.5°	772.2	792.9	816.6	856.0	873.5
165°	796.5	806.8	822.9	844.3	859.8
167.5°	810.2	819.5	828.2	838.9	848.2
170°	822.9	828.0	828.2	838.8	844.0
172.5°	827.1	836.4	832.4	834.6	839.8
175°	838.7	843.9	838.7	833.3	828.2
177.5°	838.7	842.8	838.7	838.6	834.5
180°	838.7	838.7	838.7	838.7	838.7

(END OF REPORT)