

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: P644920

Luminaire Tested: OMN4DIP-SR4F0-50D150U930-WBMOOB-1DUDD-WW

Issue Date: 9/2/2020



Test Information

Test Method: LM-79-2019
Report Number: P644920
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-SR4F0-50D150U930-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: 3000K CCT, 90 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

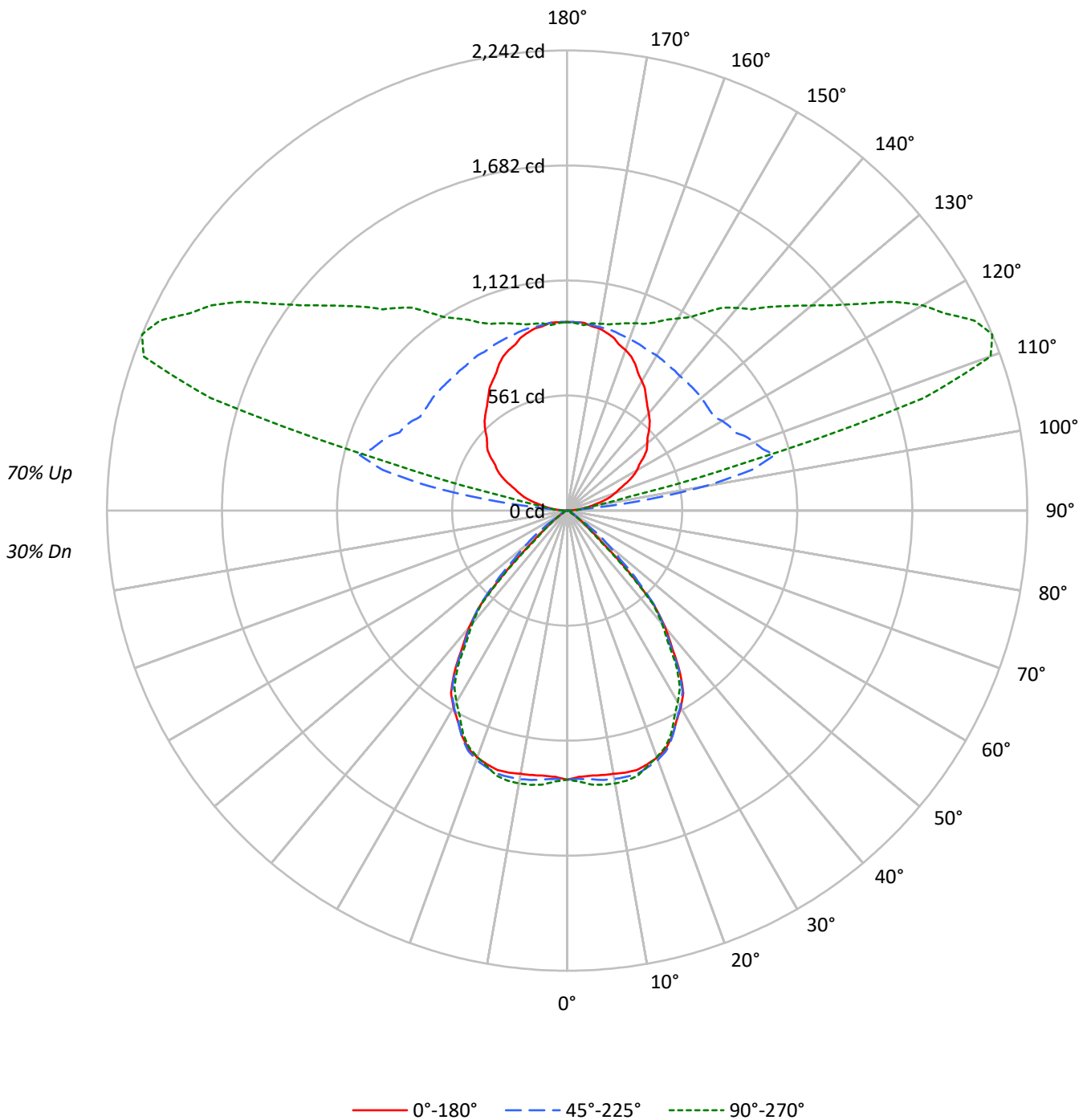
Lumens per Lamp: N/A
Luminaire Lumens: 7045.7 lumens
Efficiency: N/A
Efficacy: 105.5 lumens/watt
Spacing Criteria (0/90/45): 1.24 / 1.21 / 1.19
Luminous Opening: Rectangular (W 0.21' x L: 4' x H: 0')
CIE Type: Semi-Indirect

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

TEST NUMBER: P644920

CATALOG NUMBER: OMN4DIP-SR4F0-50D150U930-WBMOOB-1DUDD-WW

Luminous Intensity Polar Plot





TEST NUMBER: P644920

CATALOG NUMBER: OMN4DIP-SR4F0-50D150U930-WBMOOB-1DUDD-WW

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°	16935	16935	16935
5°	16808	17039	17371
10°	17080	17417	17701
15°	17506	17744	17863
20°	17601	17764	17560
25°	17265	17306	17095
30°	16506	16463	16065
35°	15070	14945	14633
40°	12518	12336	12102
45°	7864	8945	7502
50°	3016	5297	2797
55°	1423	2223	1446
60°	690	1121	612
65°	633	663	575
70°	634	634	559
75°	639	639	544
80°	662	588	513
85°	726	578	445

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 45°
 Vertical Angle: 45°
 Luminance: 8945 cd/sqm



TEST NUMBER: P644920

CATALOG NUMBER: OMN4DIP-SR4F0-50D150U930-WBMOOB-1DUDD-WW

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	126.3	1.8
10°-20°	373.5	5.3
20°-30°	554.9	7.9
30°-40°	580.8	8.2
40°-50°	351.8	5.0
50°-60°	81.2	1.2
60°-70°	22.3	0.3
70°-80°	13.1	0.2
80°-90°	6.6	0.1
90°-100°	113.0	1.6
100°-110°	805.0	11.4
110°-120°	1092.8	15.5
120°-130°	889.4	12.6
130°-140°	715.4	10.2
140°-150°	564.0	8.0
150°-160°	412.4	5.9
160°-170°	256.1	3.6
170°-180°	87.3	1.2
0°-30°	1054.7	15.0
0°-40°	1635.4	23.2
0°-60°	2068.3	29.4
0°-90°	2110.3	30.0
90°-120°	2010.7	28.5
90°-150°	4179.5	59.3
90°-180°	4935.0	70.0
0°-180°	7045.7	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1311	1311	1311	1311	1311	
5°	1296	1326	1314	1320	1340	124
15°	1309	1349	1327	1316	1336	369
25°	1211	1247	1214	1183	1200	555
35°	956	970	948	926	928	587
45°	430	489	490	472	411	331
55°	63	72	99	68	64	66
65°	21	22	22	20	19	21
75°	13	13	13	12	11	14
85°	5	5	4	4	3	5
90°	0	6	12	17	17	2
95°	46	86	46	52	64	52
105°	179	275	1046	1336	884	189
115°	318	386	901	1874	2190	315
125°	456	519	849	1486	1757	406
135°	566	628	855	1223	1404	436
145°	670	727	861	1066	1179	421
155°	786	814	878	966	1011	361
165°	872	884	901	925	942	245
175°	919	924	919	913	907	87
180°	919	919	919	919	919	



TEST NUMBER: P644920

CATALOG NUMBER: OMN4DIP-SR4F0-50D150U930-WBMOOB-1DUDD-WW

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1311.1	1311.1	1311.1	1311.1	1311.1
2.5°	1298.5	1321.6	1308.7	1309.8	1320.6
5°	1296.3	1326.2	1314.1	1319.5	1339.7
7.5°	1299.8	1331.1	1323.9	1325.8	1348.0
10°	1302.2	1335.0	1327.9	1327.4	1349.6
12.5°	1307.7	1342.1	1328.7	1325.8	1347.2
15°	1309.1	1348.7	1326.9	1316.5	1335.8
17.5°	1296.3	1339.9	1310.5	1288.9	1304.4
20°	1280.5	1324.9	1292.3	1262.1	1277.5
22.5°	1256.0	1299.6	1264.7	1232.1	1248.3
25°	1211.4	1247.1	1214.3	1183.1	1199.5
27.5°	1154.9	1180.0	1152.0	1122.3	1131.6
30°	1106.7	1131.8	1103.8	1073.3	1077.1
32.5°	1053.0	1074.3	1046.9	1019.5	1022.6
35°	955.7	970.2	947.8	926.1	928.0
37.5°	837.2	839.1	824.0	804.2	804.6
40°	742.4	748.2	731.6	715.8	717.7
42.5°	629.5	652.3	636.0	621.8	622.2
45°	430.5	489.3	489.7	472.5	410.7
47.5°	237.7	305.9	349.7	271.2	204.8
50°	150.1	193.5	263.6	158.5	139.2
52.5°	107.4	126.9	192.5	112.1	102.1
55°	63.2	71.9	98.7	68.0	64.2
57.5°	38.5	46.0	57.7	45.5	38.7
60°	26.7	33.4	43.4	30.5	23.7
62.5°	23.5	25.6	34.0	24.2	22.1
65°	20.7	21.7	21.7	19.7	18.8
67.5°	18.4	19.3	18.4	17.4	16.4
70°	16.8	17.7	16.8	15.8	14.8
72.5°	15.2	16.2	15.2	14.2	13.2
75°	12.8	12.8	12.8	11.8	10.9
77.5°	10.5	10.5	10.3	9.5	8.5
80°	8.9	8.9	7.9	7.9	6.9
82.5°	7.3	7.3	6.3	6.3	5.3
85°	4.9	4.9	3.9	3.9	3.0
87.5°	2.4	3.5	3.9	5.0	4.3
90°	0.0	5.7	11.6	17.3	17.3
92.5°	13.9	19.5	25.4	35.9	40.4
95°	46.2	85.8	46.2	52.3	63.6
97.5°	82.1	164.5	339.8	100.2	86.7
100°	109.8	205.8	681.9	200.7	132.9
102.5°	137.5	238.1	922.2	529.6	290.1
105°	179.1	275.2	1045.9	1336.1	884.1
107.5°	220.7	293.1	998.5	1944.5	1821.4
110°	248.5	316.3	970.8	2043.3	2195.8



TEST NUMBER: P644920

CATALOG NUMBER: OMN4DIP-SR4F0-50D150U930-WBMOOB-1DUDD-WW

CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	276.2	344.0	943.0	1985.5	2242.0
115°	317.8	385.6	901.4	1873.6	2190.0
117.5°	360.6	427.2	891.0	1752.5	2077.9
120°	392.9	455.1	872.5	1660.3	1999.3
122.5°	416.0	482.7	849.4	1581.1	1893.0
125°	456.5	518.6	849.4	1485.5	1756.7
127.5°	490.0	553.3	850.6	1374.4	1642.2
130°	508.5	576.3	855.2	1300.2	1554.4
132.5°	531.6	599.4	855.2	1266.8	1475.8
135°	566.3	628.4	855.2	1223.4	1404.2
137.5°	595.2	661.9	855.2	1175.4	1330.2
140°	618.3	680.4	855.2	1147.3	1288.6
142.5°	641.4	699.0	859.8	1114.8	1247.0
145°	670.3	726.8	861.0	1065.8	1178.8
147.5°	705.0	754.7	867.9	1030.5	1117.6
150°	728.1	773.3	872.5	1007.1	1080.6
152.5°	751.2	791.9	872.5	988.3	1048.2
155°	785.9	814.1	878.3	966.0	1011.2
157.5°	813.6	840.7	885.3	951.9	984.7
160°	832.1	854.7	889.9	942.5	970.8
162.5°	846.0	868.6	894.5	937.7	956.9
165°	872.5	883.8	901.4	924.9	941.9
167.5°	887.6	897.7	907.2	919.0	929.2
170°	901.4	907.1	907.2	918.9	924.6
172.5°	906.1	916.2	911.8	914.3	919.9
175°	918.8	924.4	918.8	912.9	907.2
177.5°	918.8	923.3	918.8	918.7	914.2
180°	918.8	918.8	918.8	918.8	918.8

(END OF REPORT)