

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: P644634

Luminaire Tested: OMN4DIP-SR4F0-100D75U830-CLBOOB-1DUDD-WW

Issue Date: 2/16/2023



Test Information

Test Method: LM-79-2019
Report Number: P644634
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2203-563-26, G2-2206-689-20)
Test Lab: INNOVATION CENTER
Issue Date: 2/16/2023
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: OMN4DIP-SR4F0-100D75U830-CLBOOB-1DUDD-WW
Description: NEO-RAY CIRQUE SUSPENDED LED LUMINAIRE
DOWNLIGHT - BATWING LENS - 1000 LUMENS PER FOOT
UPLIGHT - BATWING OPTIC - 750 LUMENS PER FOOT
Light Source: 3000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

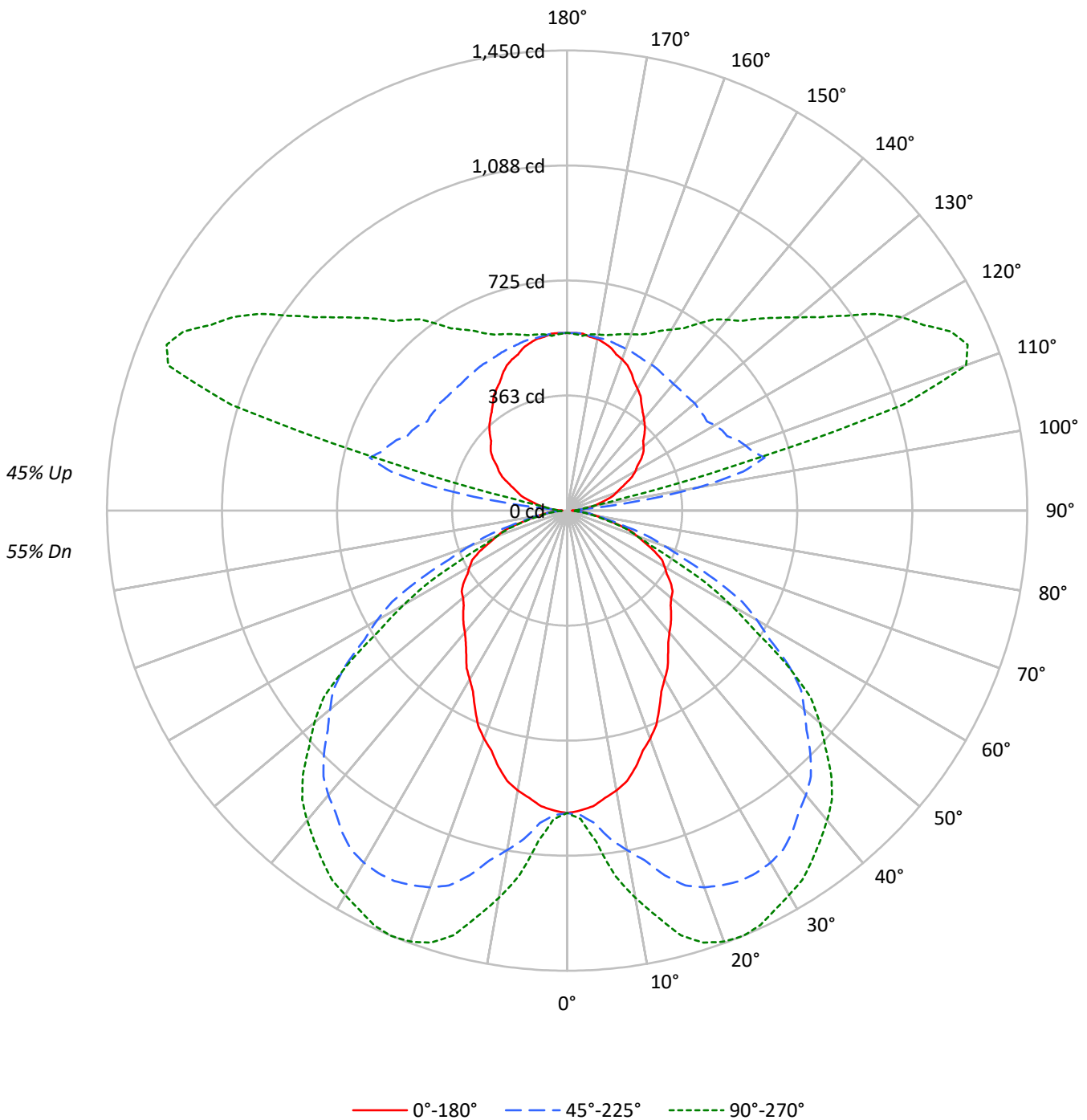
Lumens per Lamp: N/A
Luminaire Lumens: 6694.6 lumens
Efficiency: N/A
Efficacy: 132.0 lumens/watt
Spacing Criteria (0/90/45): 0.99 / 1.87 / 1.75
Luminous Opening: Rectangular (W 0.17' x L: 4' x H: 0')
CIE Type: General Diffuse

Input Watts (W): 50.7
Input Voltage (V): 120
Input Current (Ain): 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	108	108	108	108	100	100	100	100	86	86	86	73	73	73	60	60	60	55				
1	99	95	91	87	92	88	85	82	76	73	71	64	62	61	54	52	51	46				
2	90	83	76	71	83	77	72	67	66	62	59	56	53	51	47	45	43	39				
3	82	73	65	59	76	68	61	56	58	53	49	50	46	43	42	39	37	33				
4	75	64	56	50	69	60	53	47	52	46	42	44	40	36	37	34	31	28				
5	69	57	49	43	64	53	46	40	46	40	36	39	35	31	33	30	27	24				
6	63	51	43	37	58	48	40	35	41	35	31	35	31	27	30	26	24	21				
7	58	46	38	32	54	43	36	30	37	31	27	32	27	24	27	24	21	18				
8	54	42	34	28	50	39	32	27	34	28	24	29	25	21	25	21	19	16				
9	50	38	30	25	47	35	29	24	31	25	21	27	22	19	23	19	17	14				
10	47	35	27	22	43	33	26	21	28	23	19	25	20	17	21	18	15	13				

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	15389	15389	15389
5°	15161	16023	16956
10°	14682	17807	20315
15°	13969	19896	23158
20°	13139	21710	24831
25°	12241	22942	25668
30°	11447	23886	26077
35°	10924	24380	26520
40°	10560	24668	26863
45°	10579	24749	26875
50°	10746	24498	26113
55°	11232	24023	23710
60°	11454	22333	19256
65°	11603	19561	14143
70°	11094	15380	10985
75°	9956	11478	9264
80°	8452	9066	7420
85°	8207	7392	6150

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 26875 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	97.7	1.5
10°-20°	324.9	4.9
20°-30°	539.7	8.1
30°-40°	680.8	10.2
40°-50°	727.8	10.9
50°-60°	642.4	9.6
60°-70°	412.3	6.2
70°-80°	182.8	2.7
80°-90°	48.6	0.7
90°-100°	81.3	1.2
100°-110°	498.4	7.4
110°-120°	671.9	10.0
120°-130°	545.8	8.2
130°-140°	436.2	6.5
140°-150°	343.6	5.1
150°-160°	251.2	3.8
160°-170°	156.1	2.3
170°-180°	53.2	0.8
0°-30°	962.3	14.4
0°-40°	1643.1	24.5
0°-60°	3013.3	45.0
0°-90°	3657.0	54.6
90°-120°	1251.5	18.7
90°-150°	2577.2	38.5
90°-180°	3038.0	45.4
0°-180°	6694.6	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	953	953	953	953	953	
5°	935	964	989	1022	1046	88
15°	836	964	1190	1333	1385	234
25°	687	932	1288	1408	1441	316
35°	554	851	1237	1317	1346	348
45°	463	728	1084	1151	1177	358
55°	399	572	853	858	842	354
65°	304	384	512	416	370	297
75°	160	177	184	157	148	170
85°	44	38	40	35	33	47
90°	16	19	20	24	19	12
95°	52	68	39	38	43	50
105°	125	181	644	816	539	132
115°	205	244	556	1144	1334	204
125°	285	323	524	907	1070	253
135°	345	383	521	745	856	266
145°	408	443	525	649	718	257
155°	479	496	535	589	616	220
165°	532	538	549	564	574	149
175°	560	563	560	556	553	53
180°	560	560	560	560	560	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	953.1	953.1	953.1	953.1	953.1
2.5°	946.0	959.9	960.2	965.7	972.6
5°	935.4	963.6	988.6	1022.4	1046.2
7.5°	913.2	963.5	1043.6	1122.0	1161.1
10°	895.5	964.9	1086.1	1191.4	1239.1
12.5°	872.5	964.4	1128.7	1255.4	1310.0
15°	835.7	963.5	1190.3	1333.4	1385.4
17.5°	793.1	959.6	1238.6	1382.0	1427.5
20°	764.7	955.5	1263.5	1399.7	1445.2
22.5°	732.8	946.1	1277.6	1408.5	1450.5
25°	687.1	932.1	1287.8	1408.3	1440.8
27.5°	642.4	912.0	1288.3	1390.4	1418.2
30°	614.0	895.8	1281.2	1372.7	1398.7
32.5°	589.2	877.9	1267.0	1351.4	1379.2
35°	554.2	851.1	1236.9	1317.3	1345.5
37.5°	524.0	820.5	1198.7	1277.1	1310.0
40°	501.0	795.7	1170.4	1248.5	1274.5
42.5°	483.2	769.3	1136.7	1213.0	1235.5
45°	463.3	727.7	1083.9	1151.0	1177.0
47.5°	442.0	684.7	1023.2	1086.5	1103.4
50°	427.8	653.2	975.3	1033.1	1039.6
52.5°	418.9	620.1	929.2	965.6	966.9
55°	399.0	572.4	853.4	857.5	842.3
57.5°	372.4	516.7	757.2	735.5	699.1
60°	354.7	478.2	691.6	648.3	596.3
62.5°	336.9	441.4	622.4	552.3	491.6
65°	303.7	383.9	512.0	415.7	370.2
67.5°	265.1	320.6	402.1	311.0	280.6
70°	235.0	278.3	325.8	254.4	232.7
72.5°	206.6	236.1	263.8	210.3	199.1
75°	159.6	176.9	184.0	157.2	148.5
77.5°	117.5	118.3	127.7	110.7	106.4
80°	90.9	86.5	97.5	84.1	79.8
82.5°	69.6	63.5	70.9	61.1	58.5
85°	44.3	37.8	39.9	35.4	33.2
87.5°	26.2	21.6	21.8	20.7	18.1
90°	15.5	19.0	20.3	23.8	19.4
92.5°	29.3	27.5	27.0	31.5	30.0
95°	52.5	68.0	39.2	38.4	43.2
97.5°	71.7	115.5	215.4	65.5	55.0
100°	86.8	138.9	422.1	126.7	83.2
102.5°	102.0	158.5	568.5	325.3	177.2
105°	124.7	181.0	643.9	816.2	538.6
107.5°	149.6	189.7	615.0	1186.9	1109.7
110°	164.7	203.8	598.1	1247.0	1337.8



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	181.6	220.7	581.2	1211.9	1366.0
115°	204.7	243.9	555.9	1143.7	1334.3
117.5°	230.3	269.2	549.5	1069.9	1266.0
120°	248.3	286.1	538.3	1013.7	1218.1
122.5°	262.3	301.2	522.4	965.5	1153.3
125°	284.8	322.6	524.2	907.2	1070.3
127.5°	303.0	343.3	522.7	839.1	1000.5
130°	314.2	355.6	525.5	792.1	947.0
132.5°	324.8	366.1	521.9	771.8	899.2
135°	345.0	382.9	521.0	745.3	855.5
137.5°	362.6	403.2	521.0	716.1	810.4
140°	376.7	414.6	521.0	699.0	785.1
142.5°	390.8	425.9	523.9	679.2	759.7
145°	408.4	442.8	524.6	649.4	718.2
147.5°	429.5	459.8	528.8	627.9	680.9
150°	443.6	471.1	531.6	613.6	658.3
152.5°	457.7	482.5	531.6	602.1	638.6
155°	478.8	496.0	535.1	588.6	616.1
157.5°	495.7	512.2	539.4	579.9	599.9
160°	507.0	520.7	542.2	574.2	591.5
162.5°	515.4	529.2	545.0	571.3	583.0
165°	531.6	538.5	549.2	563.5	573.9
167.5°	540.8	547.0	552.7	559.9	566.1
170°	549.2	552.7	552.7	559.9	563.3
172.5°	552.0	558.2	555.5	557.0	560.5
175°	559.8	563.2	559.8	556.2	552.7
177.5°	559.8	562.5	559.8	559.7	557.0
180°	559.8	559.8	559.8	559.8	559.8

(END OF REPORT)