

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: P644484

Luminaire Tested: OMN4DIP-SR4F0-100D100U830-CLBOOB-1DUDD-WW

Issue Date: 2/16/2023



Test Information

Test Method: LM-79-2019
Report Number: P644484
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-SR4F0-100D100U830-CLBOOB-1DUDD-WW
Description: NEO-RAY CIRQUE SUSPENDED LED LUMINAIRE
DOWNLIGHT - BATWING LENS - 1000 LUMENS PER FOOT
UPLIGHT - BATWING OPTIC - 1000 LUMENS PER FOOT
Light Source: 3000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

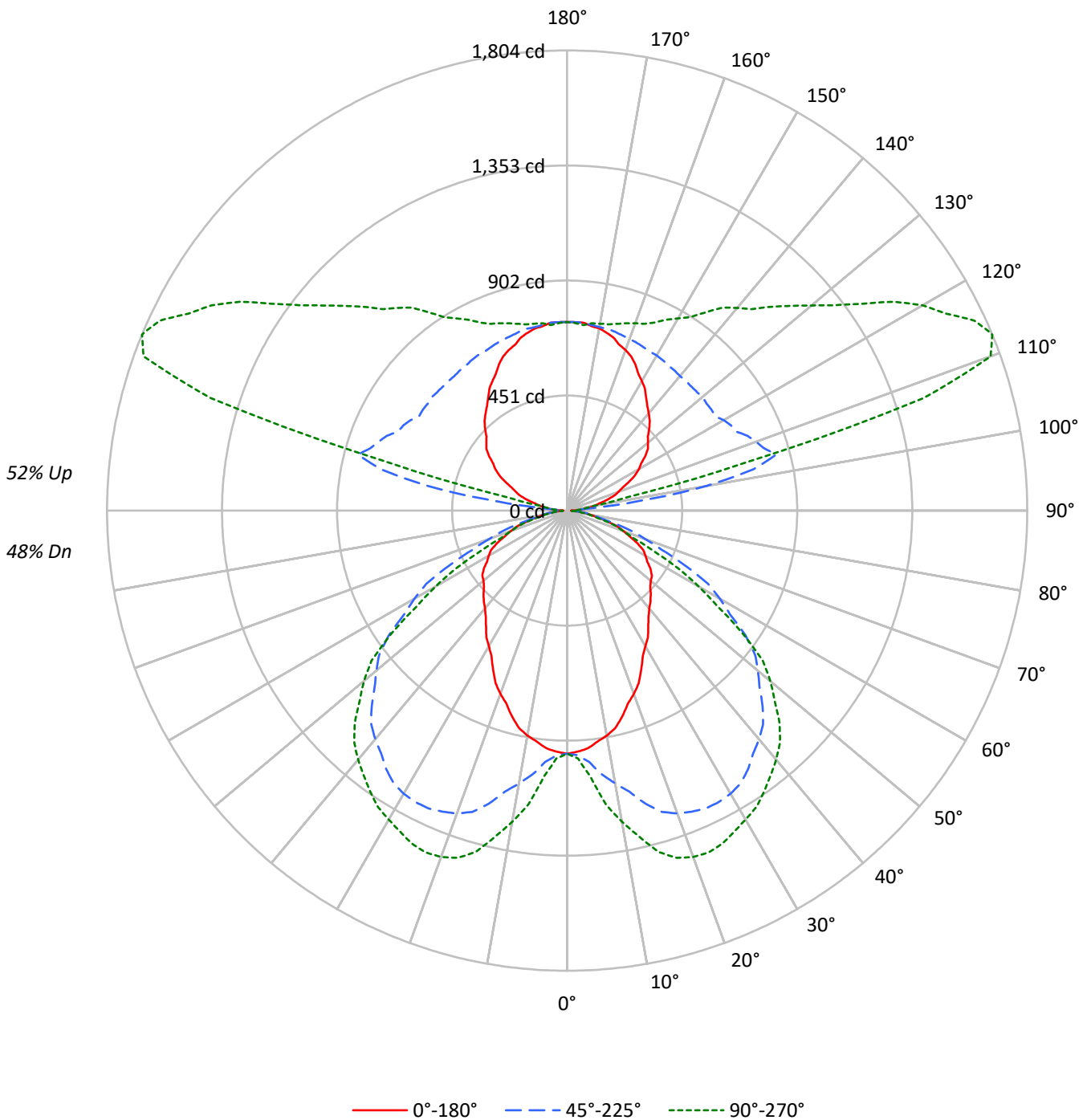
Lumens per Lamp: N/A
Luminaire Lumens: 7659.6 lumens
Efficiency: N/A
Efficacy: 130.0 lumens/watt
Spacing Criteria (0/90/45): 0.99 / 1.87 / 1.75
Luminous Opening: Rectangular (W 0.17' x L: 4' x H: 0')
CIE Type: General Diffuse

Input Watts (W): 58.9
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	107	107	107	107	98	98	98	98	82	82	82	67	67	67	54	54	54	48				48
1	97	93	89	86	89	86	83	80	72	70	68	60	58	56	48	47	46				40	
2	89	81	75	70	81	75	70	65	63	59	56	52	50	47	42	40	39				34	
3	81	71	64	58	74	66	60	54	56	51	47	46	43	40	37	35	33				29	
4	74	63	55	49	68	58	51	46	49	44	40	41	37	34	33	30	28				24	
5	68	56	48	42	62	52	45	39	44	38	34	37	32	29	30	27	24				21	
6	62	50	42	36	57	46	39	34	39	34	30	33	29	25	27	24	21				18	
7	57	45	37	31	53	42	35	30	36	30	26	30	25	22	24	21	19				16	
8	53	41	33	28	49	38	31	26	32	27	23	27	23	20	22	19	17				14	
9	49	37	30	24	45	34	28	23	30	24	20	25	21	18	20	17	15				13	
10	46	34	27	22	42	32	25	21	27	22	18	23	19	16	19	16	13				11	

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	1.3
10°-20°	324.9	4.2
20°-30°	539.7	7.0
30°-40°	680.8	8.9
40°-50°	727.8	9.5
50°-60°	642.4	8.4
60°-70°	412.3	5.4
70°-80°	182.8	2.4
80°-90°	49.0	0.6
90°-100°	103.4	1.3
100°-110°	655.7	8.6
110°-120°	885.4	11.6
120°-130°	719.6	9.4
130°-140°	576.0	7.5
140°-150°	453.8	5.9
150°-160°	331.8	4.3
160°-170°	206.1	2.7
170°-180°	70.3	0.9
0°-30°	962.3	12.6
0°-40°	1643.1	21.5
0°-60°	3013.3	39.3
0°-90°	3657.4	47.7
90°-120°	1644.5	21.5
90°-150°	3394.0	44.3
90°-180°	4002.0	52.2
0°-180°	7659.6	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	20	23	27	23	12
95°	62	85	48	49	56	60
105°	160	235	848	1077	711	169
115°	267	319	732	1510	1762	265
125°	374	424	690	1198	1414	332
135°	456	506	688	984	1130	351
145°	539	585	693	858	949	339
155°	632	655	707	777	814	290
165°	702	711	725	744	758	197
175°	739	744	739	735	730	70
180°	739	739	739	739	739	

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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	21.9	22.3	21.4	18.7
90°	15.5	20.1	22.6	27.2	22.8
92.5°	32.0	31.3	32.0	38.6	37.9
95°	61.6	84.7	48.3	48.7	55.6
97.5°	87.8	147.6	281.8	85.0	72.0
100°	108.3	179.1	555.3	165.9	109.2
102.5°	128.8	205.0	748.8	428.8	233.9
105°	159.7	234.8	848.3	1077.3	711.4
107.5°	192.7	247.0	810.1	1566.9	1465.6
110°	213.2	265.6	787.8	1646.3	1766.9



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	235.6	288.0	765.5	1599.9	1804.1
115°	266.8	319.2	732.0	1509.8	1762.3
117.5°	300.8	352.7	723.7	1412.4	1672.1
120°	325.1	375.1	708.8	1338.2	1608.8
122.5°	343.7	395.6	688.4	1274.5	1523.3
125°	374.0	424.0	690.2	1197.5	1413.5
127.5°	398.7	451.4	688.9	1107.7	1321.5
130°	413.6	468.2	692.6	1046.2	1250.8
132.5°	428.7	483.2	689.1	1019.3	1187.6
135°	455.7	505.7	688.2	984.4	1129.9
137.5°	478.9	532.6	688.2	945.8	1070.4
140°	497.5	547.5	688.2	923.2	1036.9
142.5°	516.1	562.5	691.9	897.0	1003.4
145°	539.4	584.8	692.8	857.6	948.6
147.5°	567.3	607.3	698.4	829.3	899.3
150°	585.9	622.3	702.1	810.4	869.5
152.5°	604.5	637.2	702.1	795.3	843.5
155°	632.4	655.1	706.8	777.3	813.7
157.5°	654.7	676.5	712.4	766.0	792.3
160°	669.6	687.8	716.1	758.4	781.2
162.5°	680.7	698.9	719.8	754.6	770.0
165°	702.1	711.2	725.4	744.3	757.9
167.5°	714.2	722.4	730.0	739.5	747.7
170°	725.4	729.9	730.0	739.4	744.0
172.5°	729.1	737.3	733.7	735.7	740.3
175°	739.3	743.9	739.3	734.6	730.0
177.5°	739.3	743.0	739.3	739.2	735.6
180°	739.3	739.3	739.3	739.3	739.3

(END OF REPORT)