

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: P644595

Luminaire Tested: OMN4DIP-SR4F0-100D25U935-FLLOOB-1DUDD-WW

Issue Date: 2/16/2023



Test Information

Test Method: LM-79-2019
Report Number: P644595
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2203-563-26, G2-2206-689-19)
Test Lab: INNOVATION CENTER
Issue Date: 2/16/2023
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: OMN4DIP-SR4F0-100D25U935-FLLOOB-1DUDD-WW
Description: NEO-RAY CIRQUE SUSPENDED LED LUMINAIRE
DOWNLIGHT - FLAT FROSTED LENS - 1000 LUMENS PER FOOT
UPLIGHT - BATWING OPTIC - 250 LUMENS PER FOOT
Light Source: 3500K CCT, 90 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

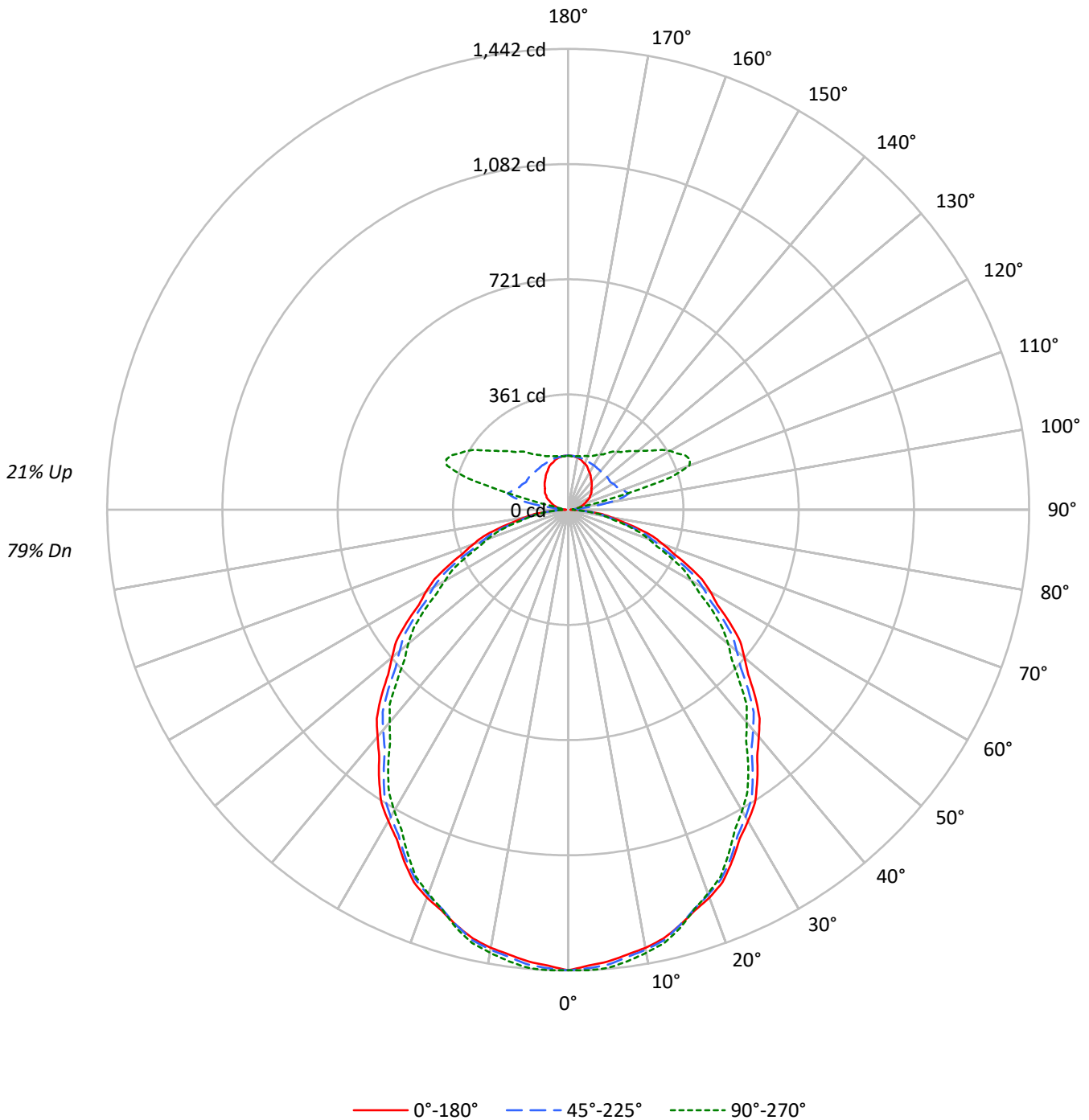
Lumens per Lamp: N/A
Luminaire Lumens: 4423.2 lumens
Efficiency: N/A
Efficacy: 115.8 lumens/watt
Spacing Criteria (0/90/45): 1.17 / 1.13 / 1.26
Luminous Opening: Rectangular (W 0.17' x L: 4' x H: 0')
CIE Type: Semi-Direct

Input Watts (W): 38.2
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									
RC	80									70									30									10									0
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	50	30	10	50	30	10	0													
RCR																																					
0	114	114	114	114	109	109	109	109	99	99	99	91	91	91	83	83	83	79																			
1	104	100	96	92	100	96	92	89	88	85	82	80	78	76	73	72	70	67																			
2	95	87	81	76	91	84	78	73	77	72	68	71	67	64	65	62	59	56																			
3	87	77	69	63	83	74	67	61	68	62	58	63	58	54	58	54	51	48																			
4	80	69	60	54	76	66	58	52	61	54	50	56	51	47	52	47	44	41																			
5	74	61	53	47	70	59	51	45	55	48	43	50	45	41	47	42	38	36																			
6	68	55	47	41	65	53	45	40	49	43	38	46	40	36	42	38	34	32																			
7	63	50	42	36	60	48	41	35	45	38	34	42	36	32	39	34	30	28																			
8	59	46	38	32	56	44	37	31	41	35	30	38	33	29	36	31	27	25																			
9	55	42	34	29	52	41	33	28	38	32	27	35	30	26	33	28	25	23																			
10	51	39	31	26	49	38	30	26	35	29	25	33	27	24	31	26	23	21																			

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	23266	23266	23266
5°	23005	23164	23323
10°	22820	22917	23077
15°	22514	22514	22644
20°	22199	22031	21962
25°	21618	21444	21166
30°	20980	20687	20286
35°	20325	19823	19360
40°	19545	18967	18305
45°	18890	18176	17278
50°	18073	17284	16397
55°	17385	16501	15508
60°	16585	15700	14370
65°	15729	14606	13482
70°	14899	13511	12585
75°	13943	12352	11740
80°	12757	11306	10758
85°	11986	10541	9800

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 18890 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	135.5	3.1
10°-20°	380.4	8.6
20°-30°	553.1	12.5
30°-40°	629.1	14.2
40°-50°	613.4	13.9
50°-60°	523.6	11.8
60°-70°	380.5	8.6
70°-80°	215.2	4.9
80°-90°	66.6	1.5
90°-100°	29.1	0.7
100°-110°	152.8	3.5
110°-120°	203.9	4.6
120°-130°	165.3	3.7
130°-140°	131.8	3.0
140°-150°	103.8	2.3
150°-160°	75.9	1.7
160°-170°	47.1	1.1
170°-180°	16.1	0.4
0°-30°	1069.0	24.2
0°-40°	1698.1	38.4
0°-60°	2835.1	64.1
0°-90°	3497.5	79.1
90°-120°	385.8	8.7
90°-150°	786.7	17.8
90°-180°	926.0	20.9
0°-180°	4423.2	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1441	1441	1441	1441	1441	
5°	1419	1440	1429	1428	1439	135
15°	1347	1364	1347	1345	1355	380
25°	1214	1225	1204	1182	1188	558
35°	1031	1035	1006	982	982	644
45°	827	824	796	768	757	637
55°	618	616	586	559	551	551
65°	412	408	382	359	353	409
75°	224	216	198	190	188	237
85°	65	57	57	55	53	69
90°	8	11	14	13	13	8
95°	24	24	14	16	16	21
105°	43	57	196	248	163	46
115°	64	75	168	345	403	65
125°	88	99	158	273	323	78
135°	104	116	157	225	258	80
145°	123	134	158	196	217	77
155°	145	150	162	178	186	66
165°	160	163	166	170	173	45
175°	169	170	169	168	167	16
180°	169	169	169	169	169	



TEST NUMBER: P644595

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1441.0	1441.0	1441.0	1441.0	1441.0
2.5°	1428.4	1446.8	1436.3	1436.4	1442.5
5°	1419.4	1440.5	1429.2	1427.5	1439.0
7.5°	1404.5	1425.2	1411.9	1409.9	1424.9
10°	1391.9	1411.1	1397.8	1394.2	1407.6
12.5°	1374.7	1393.9	1380.6	1375.4	1388.8
15°	1346.9	1364.1	1346.9	1345.1	1354.7
17.5°	1315.5	1330.4	1310.4	1303.9	1311.2
20°	1292.0	1305.4	1282.2	1272.5	1278.2
22.5°	1262.2	1275.6	1250.8	1236.4	1243.7
25°	1213.5	1225.0	1203.7	1182.3	1188.1
27.5°	1161.4	1170.2	1148.8	1126.9	1128.8
30°	1125.3	1131.1	1109.6	1086.2	1088.1
32.5°	1087.7	1091.9	1068.9	1043.8	1044.2
35°	1031.2	1035.0	1005.7	982.2	982.2
37.5°	971.2	973.5	942.2	916.7	914.0
40°	927.3	931.1	899.9	874.2	868.5
42.5°	886.5	887.3	859.1	833.4	826.1
45°	827.3	823.5	796.0	768.2	756.7
47.5°	763.4	763.4	732.0	704.4	693.6
50°	719.5	719.5	688.1	660.5	652.8
52.5°	678.7	677.2	647.4	619.7	608.9
55°	617.6	615.6	586.2	558.6	550.9
57.5°	552.9	552.9	525.4	495.8	487.4
60°	513.6	513.6	486.2	456.5	445.0
62.5°	471.3	469.8	442.3	415.9	409.0
65°	411.7	407.9	382.3	358.6	352.9
67.5°	354.8	351.0	323.9	305.0	301.1
70°	315.6	311.8	286.2	270.5	266.6
72.5°	278.0	272.6	250.2	237.5	233.7
75°	223.5	215.8	198.0	190.1	188.2
77.5°	171.7	158.7	151.3	145.8	143.9
80°	137.2	125.7	121.6	117.6	115.7
82.5°	107.4	95.9	94.9	92.5	90.6
85°	64.7	57.0	56.9	54.9	52.9
87.5°	28.2	24.2	24.7	24.6	24.6
90°	7.8	10.8	13.9	13.0	13.0
92.5°	16.7	13.5	13.3	14.8	14.1
95°	24.2	23.8	14.4	15.5	15.6
97.5°	28.8	38.2	68.0	21.9	17.9
100°	33.9	45.8	129.4	38.9	26.4
102.5°	37.5	50.2	173.6	99.4	53.8
105°	42.8	56.6	196.4	247.7	162.7
107.5°	50.0	59.9	187.6	359.7	335.1
110°	53.6	64.1	182.5	377.9	404.0



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	58.7	69.2	177.4	367.2	412.5
115°	64.4	74.9	167.8	344.7	402.9
117.5°	72.2	82.6	165.9	322.4	382.3
120°	78.2	87.7	162.5	305.5	367.9
122.5°	80.9	92.7	158.2	290.9	348.3
125°	87.9	99.3	158.2	273.3	323.2
127.5°	92.1	105.3	158.5	252.9	302.2
130°	95.5	108.0	159.3	239.2	286.0
132.5°	98.2	110.7	157.7	233.1	271.5
135°	104.2	115.6	157.4	225.1	258.4
137.5°	109.5	121.8	157.4	216.3	244.7
140°	113.8	125.2	157.4	211.1	237.1
142.5°	118.0	128.6	158.2	205.1	229.4
145°	123.3	133.7	158.4	196.1	216.9
147.5°	129.7	138.9	159.7	189.6	205.6
150°	134.0	142.3	160.5	185.3	198.8
152.5°	138.2	145.7	160.5	181.8	192.9
155°	144.6	149.8	161.6	177.7	186.1
157.5°	149.7	154.7	162.9	175.1	181.2
160°	153.1	157.3	163.7	173.4	178.6
162.5°	155.7	159.8	164.6	172.5	176.1
165°	160.5	162.6	165.9	170.2	173.3
167.5°	163.3	165.2	166.9	169.1	171.0
170°	165.9	166.9	166.9	169.1	170.1
172.5°	166.7	168.6	167.8	168.2	169.3
175°	169.0	170.1	169.0	168.0	166.9
177.5°	169.0	169.9	169.0	169.0	168.2
180°	169.0	169.0	169.0	169.0	169.0

(END OF REPORT)