

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: P644584

Luminaire Tested: OMN4DIP-SR4F0-100D25U840-FLLOOB-1DUDD-WW

Issue Date: 2/16/2023



Test Information

Test Method: LM-79-2019
Report Number: P644584
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-SR4F0-100D25U840-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: 4000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

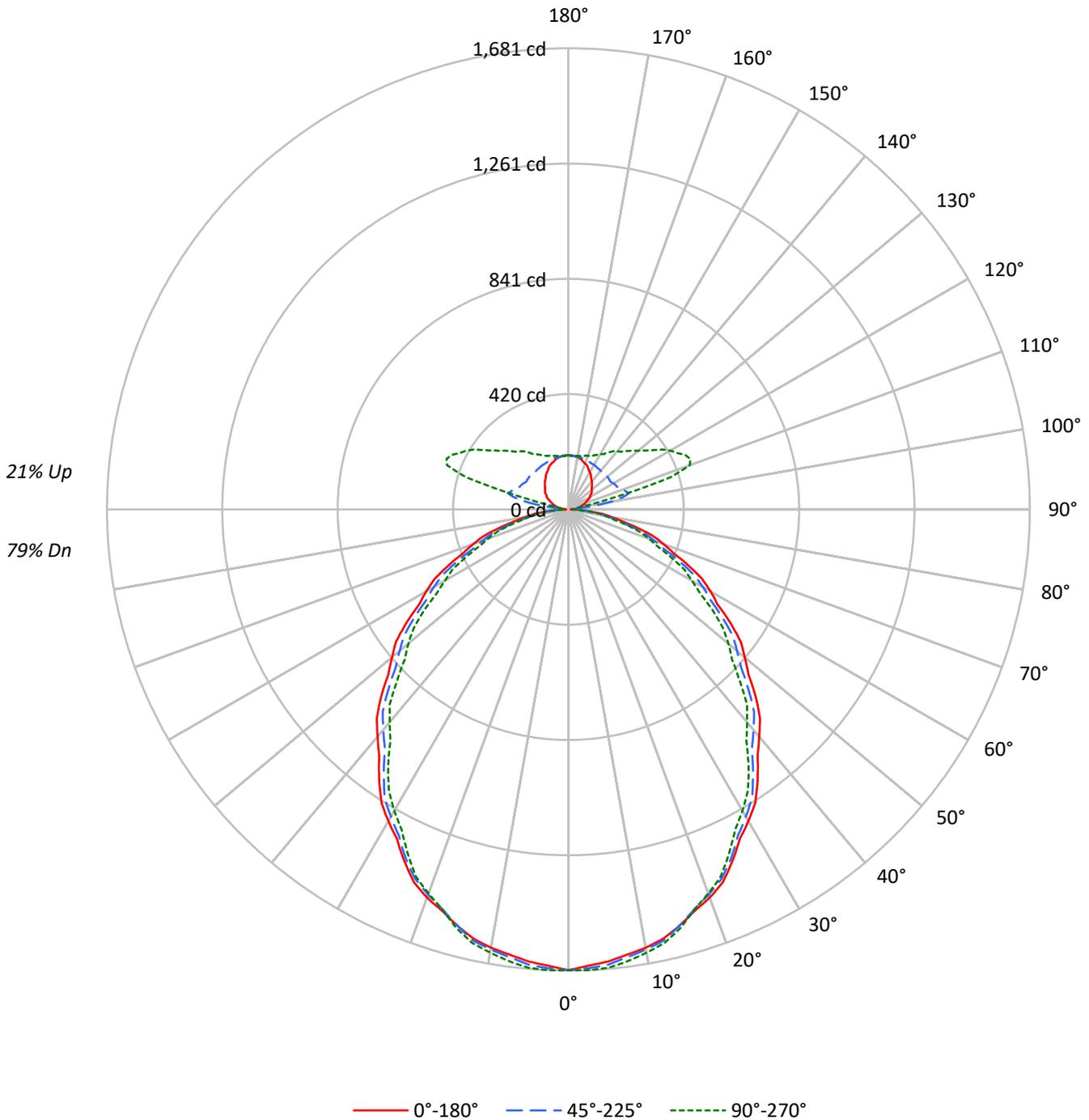
Lumens per Lamp: N/A
Luminaire Lumens: 5154.8 lumens
Efficiency: N/A
Efficacy: 134.9 lumens/watt
Spacing Criteria (0/90/45): 1.17 / 1.13 / 1.26
Luminous Opening: Rectangular (W 0.17' x L: 4' x H: 0')
CIE Type: Semi-Direct

Input Watts (W): 38.2
Input Voltage (V): 120
Input Current (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									
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°	27114	27114	27114
5°	26810	26995	27180
10°	26596	26707	26896
15°	26236	26236	26390
20°	25871	25673	25596
25°	25196	24991	24667
30°	24449	24110	23640
35°	23688	23103	22563
40°	22778	22103	21332
45°	22016	21181	20137
50°	21062	20142	19110
55°	20259	19229	18072
60°	19330	18296	16746
65°	18330	17020	15713
70°	17363	15748	14667
75°	16251	14398	13681
80°	14868	13175	12534
85°	13968	12282	11430

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 22016 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	158.0	3.1
10°-20°	443.3	8.6
20°-30°	644.6	12.5
30°-40°	733.2	14.2
40°-50°	714.9	13.9
50°-60°	610.2	11.8
60°-70°	443.4	8.6
70°-80°	250.8	4.9
80°-90°	77.6	1.5
90°-100°	34.0	0.7
100°-110°	178.0	3.5
110°-120°	237.7	4.6
120°-130°	192.6	3.7
130°-140°	153.6	3.0
140°-150°	120.9	2.3
150°-160°	88.4	1.7
160°-170°	54.9	1.1
170°-180°	18.7	0.4
0°-30°	1245.8	24.2
0°-40°	1979.0	38.4
0°-60°	3304.1	64.1
0°-90°	4076.0	79.1
90°-120°	449.6	8.7
90°-150°	916.8	17.8
90°-180°	1079.0	20.9
0°-180°	5154.8	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1679	1679	1679	1679	1679	
5°	1654	1679	1666	1664	1677	157
15°	1570	1590	1570	1568	1579	442
25°	1414	1428	1403	1378	1385	651
35°	1202	1206	1172	1145	1145	750
45°	964	960	928	895	882	742
55°	720	718	683	651	642	642
65°	480	475	446	418	411	476
75°	260	252	231	222	219	276
85°	75	66	66	64	62	81
90°	9	13	16	15	15	10
95°	28	28	17	18	18	25
105°	50	66	229	289	190	54
115°	75	87	196	402	470	75
125°	102	116	184	318	377	91
135°	121	135	183	262	301	94
145°	144	156	185	228	253	90
155°	168	175	188	207	217	77
165°	187	190	193	198	202	53
175°	197	198	197	196	194	19
180°	197	197	197	197	197	

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1679.3	1679.3	1679.3	1679.3	1679.3
2.5°	1664.7	1686.1	1673.8	1674.0	1681.1
5°	1654.2	1678.7	1665.6	1663.6	1677.0
7.5°	1636.8	1660.9	1645.5	1643.1	1660.6
10°	1622.2	1644.5	1629.0	1624.8	1640.5
12.5°	1602.1	1624.4	1608.9	1602.9	1618.5
15°	1569.6	1589.7	1569.6	1567.6	1578.8
17.5°	1533.1	1550.5	1527.1	1519.6	1528.0
20°	1505.7	1521.3	1494.2	1483.0	1489.7
22.5°	1470.9	1486.6	1457.7	1441.0	1449.4
25°	1414.3	1427.7	1402.8	1377.9	1384.6
27.5°	1353.5	1363.8	1338.9	1313.3	1315.6
30°	1311.4	1318.1	1293.2	1265.8	1268.0
32.5°	1267.6	1272.5	1245.6	1216.4	1216.9
35°	1201.8	1206.2	1172.1	1144.7	1144.7
37.5°	1131.9	1134.5	1098.1	1068.3	1065.2
40°	1080.7	1085.2	1048.7	1018.8	1012.1
42.5°	1033.2	1034.1	1001.2	971.3	962.8
45°	964.2	959.7	927.6	895.3	881.9
47.5°	889.7	889.7	853.1	820.9	808.3
50°	838.5	838.5	801.9	769.8	760.8
52.5°	791.0	789.2	754.4	722.2	709.6
55°	719.7	717.5	683.1	651.0	642.0
57.5°	644.3	644.3	612.3	577.8	568.0
60°	598.6	598.6	566.6	532.0	518.6
62.5°	549.3	547.5	515.4	484.6	476.6
65°	479.8	475.3	445.5	418.0	411.3
67.5°	413.5	409.1	377.4	355.4	350.9
70°	367.8	363.4	333.6	315.2	310.7
72.5°	324.0	317.7	291.5	276.8	272.3
75°	260.5	251.5	230.8	221.6	219.3
77.5°	200.1	185.0	176.4	169.9	167.7
80°	159.9	146.5	141.7	137.0	134.8
82.5°	125.2	111.8	110.6	107.8	105.6
85°	75.4	66.5	66.3	63.9	61.7
87.5°	32.9	28.2	28.8	28.6	28.6
90°	9.1	12.6	16.2	15.1	15.1
92.5°	19.4	15.7	15.5	17.3	16.4
95°	28.2	27.7	16.8	18.0	18.2
97.5°	33.6	44.6	79.3	25.6	20.9
100°	39.5	53.4	150.8	45.3	30.8
102.5°	43.7	58.5	202.3	115.8	62.7
105°	49.8	66.0	228.8	288.7	189.6
107.5°	58.3	69.8	218.7	419.2	390.5
110°	62.4	74.7	212.7	440.4	470.8



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	68.4	80.7	206.8	428.0	480.7
115°	75.0	87.3	195.6	401.8	469.6
117.5°	84.2	96.2	193.3	375.8	445.6
120°	91.1	102.2	189.4	356.0	428.7
122.5°	94.2	108.1	184.4	339.0	405.9
125°	102.5	115.8	184.4	318.5	376.7
127.5°	107.4	122.7	184.7	294.7	352.1
130°	111.3	125.9	185.7	278.8	333.3
132.5°	114.4	129.0	183.8	271.6	316.4
135°	121.4	134.8	183.4	262.3	301.1
137.5°	127.6	141.9	183.4	252.0	285.2
140°	132.6	145.9	183.4	246.0	276.3
142.5°	137.5	149.9	184.4	239.0	267.4
145°	143.7	155.8	184.6	228.5	252.8
147.5°	151.2	161.8	186.1	221.0	239.6
150°	156.1	165.8	187.1	216.0	231.7
152.5°	161.1	169.8	187.1	211.9	224.8
155°	168.5	174.6	188.3	207.1	216.8
157.5°	174.5	180.3	189.8	204.1	211.1
160°	178.4	183.3	190.8	202.1	208.2
162.5°	181.4	186.2	191.8	201.1	205.2
165°	187.1	189.5	193.3	198.3	202.0
167.5°	190.3	192.5	194.5	197.1	199.2
170°	193.3	194.5	194.5	197.0	198.2
172.5°	194.3	196.5	195.5	196.0	197.3
175°	197.0	198.2	197.0	195.7	194.5
177.5°	197.0	198.0	197.0	197.0	196.0
180°	197.0	197.0	197.0	197.0	197.0

(END OF REPORT)