

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: P644619

Luminaire Tested: OMN4DIP-SR4F0-100D50U930-FLLOOB-1DUDD-WW

Issue Date: 2/16/2023



Test Information

Test Method: LM-79-2019
Report Number: P644619
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-SR4F0-100D50U930-FLLOOB-1DUDD-WW
Description: NEO-RAY CIRQUE SUSPENDED LED LUMINAIRE
DOWNLIGHT - FLAT FROSTED LENS - 1000 LUMENS PER FOOT
UPLIGHT - BATWING OPTIC - 500 LUMENS PER FOOT
Light Source: 3000K CCT, 90 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

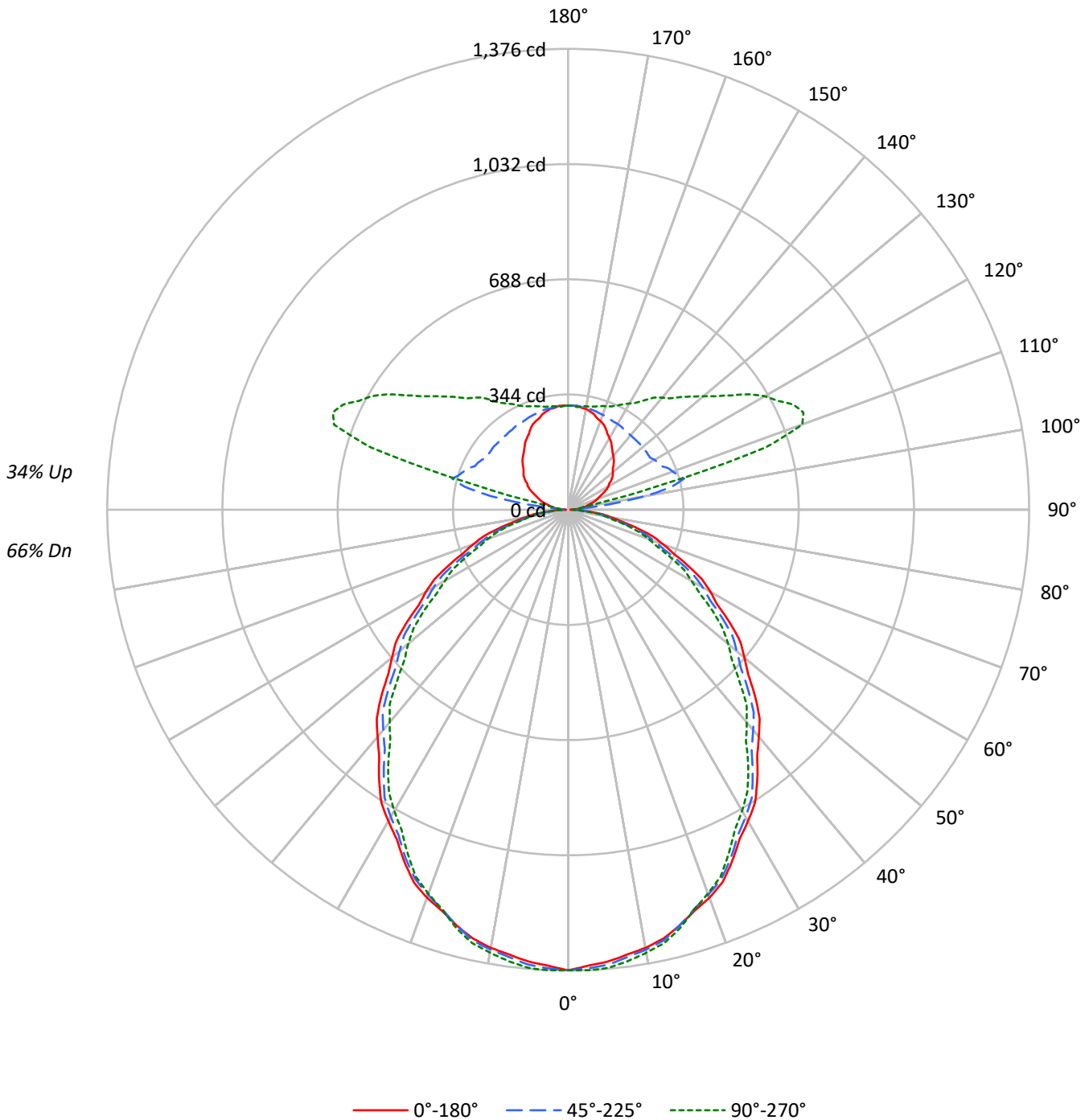
Lumens per Lamp: N/A
Luminaire Lumens: 5026.7 lumens
Efficiency: N/A
Efficacy: 113.0 lumens/watt
Spacing Criteria (0/90/45): 1.17 / 1.13 / 1.26
Luminous Opening: Rectangular (W 0.17' x L: 4' x H: 0')
CIE Type: Semi-Direct

Input Watts (W): 44.5
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	0
RCR																		
0	111	111	111	111	105	105	105	105	92	92	92	81	81	81	71	71	71	66
1	102	97	93	90	95	92	88	85	81	79	76	72	70	68	63	62	60	56
2	93	85	79	73	87	80	75	70	71	67	63	63	60	57	56	53	51	47
3	85	75	67	61	79	71	64	59	63	58	53	56	52	48	49	46	44	40
4	78	66	58	52	73	63	56	50	56	50	46	50	45	42	44	41	38	35
5	71	59	51	45	67	56	49	43	51	44	40	45	40	36	40	36	33	30
6	66	53	45	39	62	51	43	38	46	39	35	41	36	32	36	32	29	27
7	61	48	40	35	57	46	39	33	42	35	31	37	32	28	33	29	26	24
8	57	44	36	31	53	42	35	30	38	32	28	34	29	25	31	27	23	21
9	53	40	33	28	50	39	31	27	35	29	25	32	27	23	28	24	21	19
10	50	37	30	25	47	36	29	24	32	26	22	29	24	21	26	22	19	17

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	22201	22201	22201
5°	21951	22102	22255
10°	21776	21868	22022
15°	21483	21483	21608
20°	21182	21021	20957
25°	20630	20462	20197
30°	20020	19740	19356
35°	19395	18916	18473
40°	18649	18099	17466
45°	18025	17342	16488
50°	17246	16493	15646
55°	16588	15744	14798
60°	15826	14980	13714
65°	15007	13937	12863
70°	14219	12892	12010
75°	13306	11784	11204
80°	12171	10786	10265
85°	11430	10059	9355

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 18025 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	129.3	2.6
10°-20°	363.0	7.2
20°-30°	527.7	10.5
30°-40°	600.3	11.9
40°-50°	585.3	11.6
50°-60°	499.6	9.9
60°-70°	363.1	7.2
70°-80°	205.3	4.1
80°-90°	63.9	1.3
90°-100°	46.3	0.9
100°-110°	277.2	5.5
110°-120°	373.0	7.4
120°-130°	302.9	6.0
130°-140°	242.6	4.8
140°-150°	191.1	3.8
150°-160°	139.7	2.8
160°-170°	86.8	1.7
170°-180°	29.6	0.6
0°-30°	1020.0	20.3
0°-40°	1620.4	32.2
0°-60°	2705.3	53.8
0°-90°	3337.6	66.4
90°-120°	696.4	13.9
90°-150°	1433.0	28.5
90°-180°	1689.0	33.6
0°-180°	5026.7	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1375	1375	1375	1375	1375	
5°	1354	1374	1364	1362	1373	128
15°	1285	1302	1285	1284	1293	362
25°	1158	1169	1149	1128	1134	533
35°	984	988	960	937	937	614
45°	789	786	760	733	722	608
55°	589	587	559	533	526	526
65°	393	389	365	342	337	390
75°	213	206	189	181	180	226
85°	62	54	54	52	50	66
90°	8	11	15	15	15	8
95°	31	37	21	23	25	29
105°	70	99	358	454	300	75
115°	113	134	307	635	742	113
125°	158	180	290	503	595	140
135°	192	213	290	414	476	148
145°	227	246	292	361	399	143
155°	266	276	298	327	343	122
165°	296	300	305	313	319	83
175°	311	313	311	309	307	29
180°	311	311	311	311	311	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1375.0	1375.0	1375.0	1375.0	1375.0
2.5°	1363.0	1380.6	1370.5	1370.6	1376.5
5°	1354.4	1374.5	1363.7	1362.1	1373.1
7.5°	1340.2	1359.9	1347.3	1345.4	1359.6
10°	1328.2	1346.5	1333.8	1330.4	1343.2
12.5°	1311.7	1330.0	1317.4	1312.4	1325.2
15°	1285.2	1301.6	1285.2	1283.5	1292.7
17.5°	1255.2	1269.5	1250.4	1244.2	1251.1
20°	1232.8	1245.6	1223.4	1214.2	1219.7
22.5°	1204.4	1217.2	1193.5	1179.8	1186.8
25°	1158.0	1168.9	1148.6	1128.2	1133.7
27.5°	1108.2	1116.6	1096.2	1075.3	1077.2
30°	1073.8	1079.3	1058.8	1036.4	1038.2
32.5°	1037.9	1041.9	1019.9	996.0	996.3
35°	984.0	987.7	959.7	937.2	937.2
37.5°	926.7	928.9	899.1	874.7	872.1
40°	884.8	888.5	858.7	834.2	828.7
42.5°	845.9	846.7	819.7	795.3	788.3
45°	789.4	785.8	759.5	733.1	722.1
47.5°	728.5	728.5	698.5	672.1	661.9
50°	686.6	686.6	656.6	630.3	622.9
52.5°	647.6	646.2	617.7	591.3	581.0
55°	589.3	587.4	559.3	533.0	525.7
57.5°	527.5	527.5	501.4	473.1	465.1
60°	490.1	490.1	463.9	435.6	424.7
62.5°	449.7	448.3	422.0	396.8	390.2
65°	392.8	389.2	364.8	342.2	336.7
67.5°	338.6	334.9	309.0	291.0	287.3
70°	301.2	297.5	273.1	258.1	254.4
72.5°	265.3	260.1	238.7	226.6	223.0
75°	213.3	205.9	188.9	181.4	179.6
77.5°	163.9	151.4	144.4	139.1	137.3
80°	130.9	120.0	116.0	112.2	110.4
82.5°	102.5	91.5	90.5	88.3	86.4
85°	61.7	54.4	54.3	52.3	50.5
87.5°	26.9	23.3	24.0	24.0	24.0
90°	7.5	11.2	15.1	15.2	15.2
92.5°	18.2	16.1	16.8	20.0	20.1
95°	30.6	36.7	21.3	23.3	25.3
97.5°	40.9	63.4	120.4	37.3	31.2
100°	50.3	77.4	234.8	69.9	46.9
102.5°	58.2	86.8	316.2	181.3	98.7
105°	70.0	98.9	358.1	454.5	299.6
107.5°	83.8	105.0	342.1	660.7	617.1
110°	91.7	112.8	332.7	694.1	744.0

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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	101.1	122.2	323.3	674.6	759.7
115°	113.3	134.4	307.3	634.8	742.0
117.5°	127.8	148.5	303.8	593.8	704.1
120°	138.7	158.0	297.5	562.6	677.4
122.5°	145.1	167.3	289.7	535.7	641.4
125°	158.4	179.5	289.7	503.3	595.2
127.5°	167.9	190.8	290.1	465.7	556.4
130°	174.2	197.1	291.6	440.5	526.7
132.5°	180.5	203.5	290.1	429.2	500.0
135°	191.9	212.9	289.8	414.5	475.8
137.5°	201.7	224.3	289.8	398.2	450.7
140°	209.5	230.6	289.8	388.7	436.6
142.5°	217.3	236.9	291.3	377.7	422.5
145°	227.1	246.3	291.7	361.1	399.4
147.5°	238.9	255.7	294.1	349.2	378.7
150°	246.7	262.0	295.6	341.2	366.1
152.5°	254.5	268.3	295.6	334.9	355.2
155°	266.3	275.8	297.6	327.3	342.6
157.5°	275.7	284.9	299.9	322.5	333.6
160°	281.9	289.6	301.5	319.4	328.9
162.5°	286.6	294.3	303.1	317.7	324.2
165°	295.6	299.5	305.4	313.4	319.1
167.5°	300.7	304.2	307.4	311.4	314.8
170°	305.4	307.3	307.4	311.3	313.3
172.5°	307.0	310.4	309.0	309.8	311.7
175°	311.3	313.2	311.3	309.3	307.4
177.5°	311.3	312.8	311.3	311.3	309.7
180°	311.3	311.3	311.3	311.3	311.3

(END OF REPORT)