

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: P644610

Luminaire Tested: OMN4DIP-SR4F0-100D50U835-FLLOOB-1DUDD-WW

Issue Date: 2/16/2023



Test Information

Test Method: LM-79-2019
Report Number: P644610
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-SR4F0-100D50U835-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: 3500K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

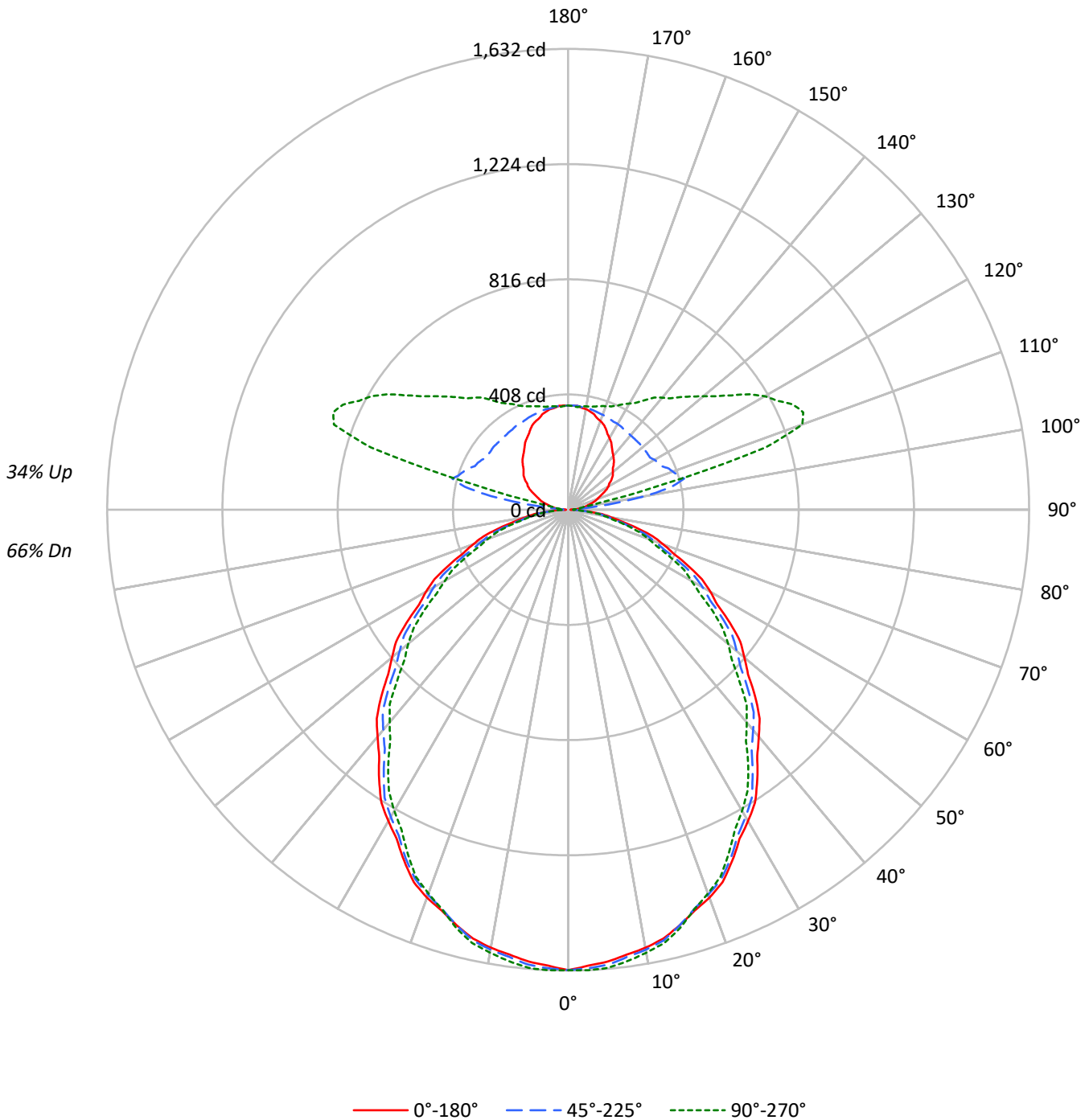
Lumens per Lamp: N/A
Luminaire Lumens: 5961.6 lumens
Efficiency: N/A
Efficacy: 134.0 lumens/watt
Spacing Criteria (0/90/45): 1.17 / 1.13 / 1.26
Luminous Opening: Rectangular (W 0.17' x L: 4' x H: 0')
CIE Type: Semi-Direct

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°	26329	26329	26329
5°	26034	26214	26394
10°	25825	25935	26117
15°	25478	25478	25626
20°	25122	24931	24854
25°	24465	24268	23952
30°	23743	23411	22956
35°	23002	22432	21908
40°	22118	21463	20714
45°	21379	20569	19555
50°	20451	19560	18558
55°	19674	18674	17548
60°	18771	17767	16262
65°	17799	16527	15255
70°	16862	15290	14242
75°	15777	13980	13288
80°	14440	12794	12171
85°	13561	11912	11097

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 21379 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	153.4	2.6
10°-20°	430.5	7.2
20°-30°	625.9	10.5
30°-40°	712.0	11.9
40°-50°	694.2	11.6
50°-60°	592.5	9.9
60°-70°	430.6	7.2
70°-80°	243.5	4.1
80°-90°	75.8	1.3
90°-100°	54.8	0.9
100°-110°	328.7	5.5
110°-120°	442.4	7.4
120°-130°	359.3	6.0
130°-140°	287.7	4.8
140°-150°	226.6	3.8
150°-160°	165.7	2.8
160°-170°	102.9	1.7
170°-180°	35.1	0.6
0°-30°	1209.7	20.3
0°-40°	1921.7	32.2
0°-60°	3208.4	53.8
0°-90°	3958.4	66.4
90°-120°	825.9	13.9
90°-150°	1699.5	28.5
90°-180°	2003.0	33.6
0°-180°	5961.6	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1631	1631	1631	1631	1631	
5°	1606	1630	1617	1615	1628	152
15°	1524	1544	1524	1522	1533	430
25°	1373	1386	1362	1338	1344	632
35°	1167	1171	1138	1112	1112	729
45°	936	932	901	869	856	721
55°	699	697	663	632	623	624
65°	466	462	433	406	399	463
75°	253	244	224	215	213	268
85°	73	64	64	62	60	78
90°	9	13	18	18	18	10
95°	36	44	25	28	30	34
105°	83	117	425	539	355	89
115°	134	159	364	753	880	134
125°	188	213	344	597	706	167
135°	228	252	344	492	564	175
145°	269	292	346	428	474	169
155°	316	327	353	388	406	145
165°	351	355	362	372	378	98
175°	369	372	369	367	365	35
180°	369	369	369	369	369	

TEST NUMBER: P644610

CATALOG NUMBER: OMN4DIP-SR4F0-100D50U835-FLLOOB-1DUDD-WW

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1630.7	1630.7	1630.7	1630.7	1630.7
2.5°	1616.5	1637.3	1625.4	1625.5	1632.5
5°	1606.3	1630.1	1617.4	1615.4	1628.5
7.5°	1589.4	1612.8	1597.8	1595.6	1612.5
10°	1575.2	1596.9	1581.9	1577.8	1593.0
12.5°	1555.7	1577.4	1562.3	1556.5	1571.7
15°	1524.2	1543.7	1524.2	1522.2	1533.1
17.5°	1488.7	1505.6	1482.9	1475.6	1483.8
20°	1462.1	1477.2	1451.0	1440.0	1446.5
22.5°	1428.3	1443.5	1415.5	1399.2	1407.5
25°	1373.3	1386.3	1362.2	1338.0	1344.5
27.5°	1314.3	1324.3	1300.1	1275.3	1277.5
30°	1273.5	1280.0	1255.7	1229.2	1231.3
32.5°	1230.9	1235.7	1209.6	1181.2	1181.6
35°	1167.0	1171.3	1138.1	1111.5	1111.5
37.5°	1099.1	1101.7	1066.3	1037.4	1034.3
40°	1049.4	1053.7	1018.3	989.4	982.8
42.5°	1003.3	1004.1	972.2	943.2	934.9
45°	936.3	931.9	900.8	869.4	856.4
47.5°	863.9	863.9	828.4	797.1	784.9
50°	814.2	814.2	778.7	747.5	738.8
52.5°	768.1	766.3	732.6	701.2	689.1
55°	698.9	696.7	663.4	632.1	623.4
57.5°	625.6	625.6	594.6	561.1	551.5
60°	581.3	581.3	550.2	516.6	503.6
62.5°	533.4	531.6	500.5	470.6	462.8
65°	465.9	461.6	432.6	405.9	399.3
67.5°	401.6	397.2	366.5	345.1	340.8
70°	357.2	352.9	323.9	306.1	301.7
72.5°	314.6	308.5	283.1	268.8	264.5
75°	252.9	244.2	224.1	215.2	213.0
77.5°	194.4	179.6	171.3	165.0	162.8
80°	155.3	142.3	137.6	133.1	130.9
82.5°	121.6	108.6	107.4	104.7	102.5
85°	73.2	64.5	64.3	62.1	59.9
87.5°	31.9	27.6	28.4	28.5	28.5
90°	8.9	13.3	18.0	18.1	18.1
92.5°	21.5	19.0	20.0	23.7	23.8
95°	36.3	43.5	25.2	27.6	30.0
97.5°	48.5	75.1	142.7	44.2	37.0
100°	59.6	91.7	278.4	82.9	55.6
102.5°	69.0	102.9	375.0	215.0	117.0
105°	83.1	117.3	424.7	539.1	355.3
107.5°	99.3	124.5	405.7	783.6	731.9
110°	108.7	133.8	394.5	823.2	882.4



TEST NUMBER: P644610

CATALOG NUMBER: OMN4DIP-SR4F0-100D50U835-FLLOOB-1DUDD-WW

CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	119.9	144.9	383.4	800.0	900.9
115°	134.4	159.4	364.4	752.9	880.0
117.5°	151.5	176.2	360.3	704.2	835.0
120°	164.6	187.4	352.8	667.2	803.4
122.5°	172.1	198.4	343.6	635.4	760.7
125°	187.9	212.8	343.6	596.9	705.9
127.5°	199.1	226.3	344.0	552.3	659.9
130°	206.6	233.8	345.9	522.4	624.6
132.5°	214.1	241.3	344.1	509.0	593.0
135°	227.6	252.5	343.7	491.6	564.2
137.5°	239.2	266.0	343.7	472.3	534.5
140°	248.5	273.4	343.7	461.0	517.8
142.5°	257.7	280.9	345.5	448.0	501.1
145°	269.4	292.1	346.0	428.3	473.7
147.5°	283.3	303.3	348.8	414.1	449.1
150°	292.6	310.7	350.6	404.7	434.2
152.5°	301.9	318.2	350.6	397.1	421.2
155°	315.8	327.1	352.9	388.2	406.3
157.5°	326.9	337.8	355.7	382.5	395.7
160°	334.4	343.4	357.6	378.7	390.1
162.5°	339.9	349.0	359.4	376.8	384.5
165°	350.6	355.2	362.2	371.7	378.5
167.5°	356.7	360.7	364.6	369.3	373.4
170°	362.2	364.5	364.6	369.2	371.5
172.5°	364.1	368.2	366.4	367.4	369.7
175°	369.2	371.5	369.2	366.8	364.6
177.5°	369.2	371.0	369.2	369.2	367.3
180°	369.2	369.2	369.2	369.2	369.2

(END OF REPORT)