

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: P644859

Luminaire Tested: OMN4DIP-SR4F0-50D100U930-FLLOOB-1DUDD-WW

Issue Date: 2/16/2023



Test Information

Test Method: LM-79-2019
Report Number: P644859
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-SR4F0-50D100U930-FLLOOB-1DUDD-WW
Description: NEO-RAY CIRQUE SUSPENDED LED LUMINAIRE
DOWNLIGHT - FLAT FROSTED LENS - 500 LUMENS PER FOOT
UPLIGHT - BATWING OPTIC - 1000 LUMENS PER FOOT
Light Source: 3000K CCT, 90 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

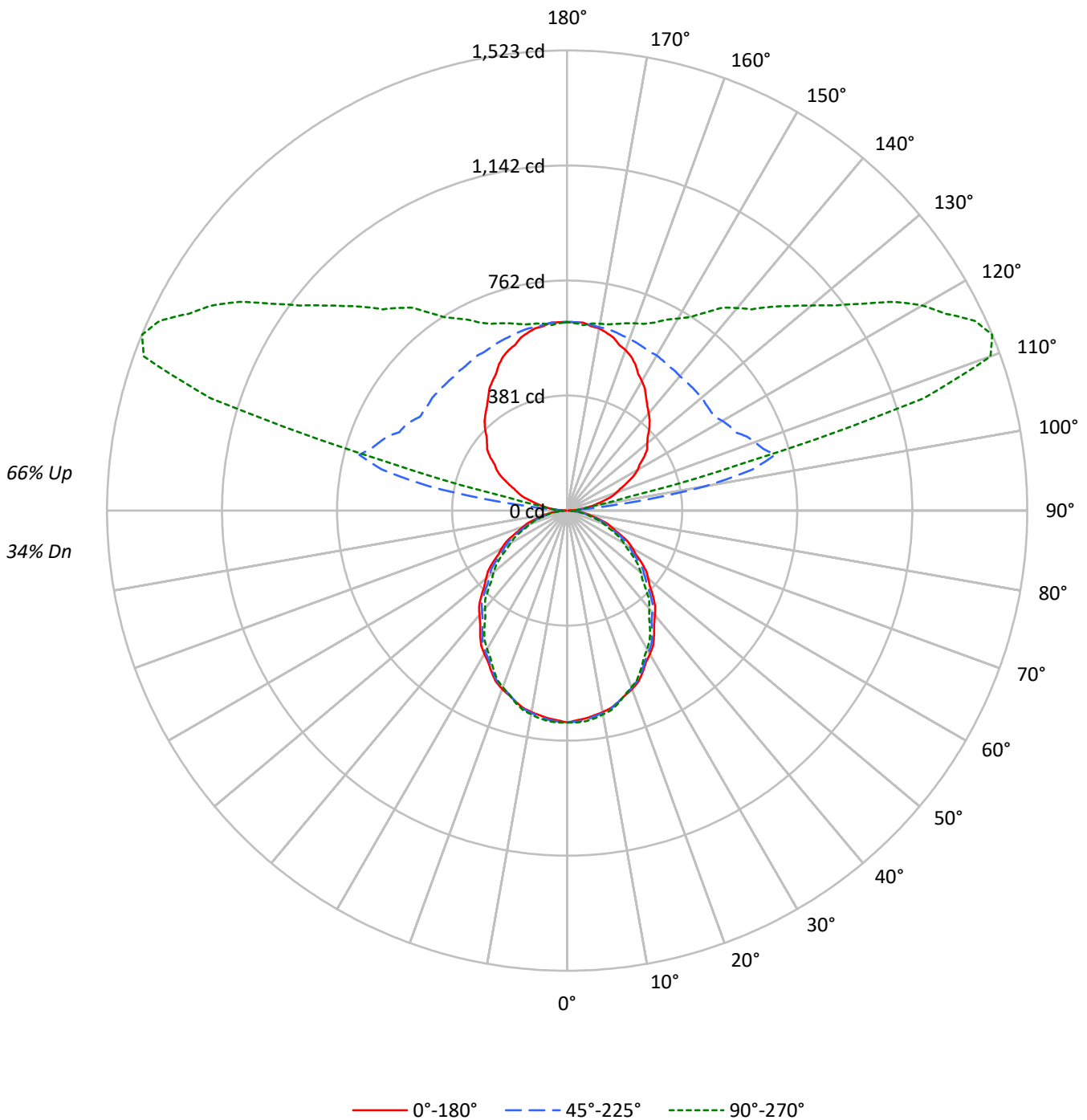
Lumens per Lamp: N/A
Luminaire Lumens: 5063.8 lumens
Efficiency: N/A
Efficacy: 116.9 lumens/watt
Spacing Criteria (0/90/45): 1.17 / 1.13 / 1.26
Luminous Opening: Rectangular (W 0.17' x L: 4' x H: 0')
CIE Type: Semi-Indirect

Input Watts (W): 43.3
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	103	103	103	103	93	93	93	93	74	74	74	57	57	57	41	41	41	34
1	94	90	86	83	85	81	78	75	65	63	61	50	49	47	36	35	35	28
2	86	79	73	68	77	71	66	62	57	53	50	44	42	40	32	31	29	24
3	78	69	62	56	70	63	57	52	50	46	42	39	36	34	28	27	25	20
4	72	61	53	48	64	55	49	44	45	40	36	35	31	29	25	23	22	18
5	66	54	47	41	59	49	43	37	40	35	31	31	28	25	23	21	19	15
6	60	49	41	35	54	44	37	32	36	31	27	28	25	22	21	18	17	13
7	56	44	36	31	50	40	33	28	33	27	24	26	22	19	19	17	15	12
8	52	40	32	27	47	36	30	25	30	25	21	23	20	17	17	15	13	11
9	48	36	29	24	43	33	27	22	27	22	19	21	18	15	16	14	12	10
10	45	33	26	21	40	30	24	20	25	20	17	20	16	14	15	13	11	9

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	11323	11323	11323
5°	11196	11274	11352
10°	11108	11155	11232
15°	10957	10957	11022
20°	10804	10723	10689
25°	10523	10438	10302
30°	10211	10069	9874
35°	9893	9648	9424
40°	9512	9232	8909
45°	9195	8846	8410
50°	8796	8412	7983
55°	8462	8031	7547
60°	8073	7640	6994
65°	7656	7110	6564
70°	7251	6576	6128
75°	6787	6014	5714
80°	6211	5504	5235
85°	5835	5132	4780

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 9195 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	66.0	1.3
10°-20°	185.1	3.7
20°-30°	269.2	5.3
30°-40°	306.2	6.0
40°-50°	298.6	5.9
50°-60°	254.8	5.0
60°-70°	185.2	3.7
70°-80°	104.7	2.1
80°-90°	33.7	0.7
90°-100°	80.8	1.6
100°-110°	548.9	10.8
110°-120°	743.5	14.7
120°-130°	604.8	11.9
130°-140°	485.9	9.6
140°-150°	383.0	7.6
150°-160°	280.1	5.5
160°-170°	173.9	3.4
170°-180°	59.3	1.2
0°-30°	520.3	10.3
0°-40°	826.5	16.3
0°-60°	1379.9	27.3
0°-90°	1703.5	33.6
90°-120°	1373.3	27.1
90°-150°	2847.0	56.2
90°-180°	3360.0	66.4
0°-180°	5063.8	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	701	701	701	701	701	
5°	691	701	696	695	700	65
15°	656	664	656	655	659	185
25°	591	596	586	576	578	272
35°	502	504	490	478	478	313
45°	403	401	387	374	368	310
55°	301	300	285	272	268	268
65°	200	198	186	175	172	199
75°	109	105	96	92	92	115
85°	32	28	28	27	26	34
90°	4	9	14	16	16	5
95°	39	62	34	38	45	41
105°	126	190	712	908	600	134
115°	219	264	613	1272	1487	217
125°	312	354	578	1009	1193	277
135°	385	427	581	831	954	296
145°	455	494	585	724	800	286
155°	534	553	596	656	687	245
165°	593	600	612	628	640	166
175°	624	628	624	620	616	59
180°	624	624	624	624	624	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	701.3	701.3	701.3	701.3	701.3
2.5°	695.2	704.2	699.1	699.1	702.1
5°	690.8	701.1	695.6	694.8	700.4
7.5°	683.6	693.7	687.2	686.2	693.5
10°	677.5	686.8	680.4	678.6	685.1
12.5°	669.1	678.4	672.0	669.4	676.0
15°	655.5	663.9	655.5	654.7	659.4
17.5°	640.3	647.6	637.8	634.6	638.2
20°	628.8	635.4	624.1	619.3	622.1
22.5°	614.3	620.9	608.8	601.8	605.4
25°	590.7	596.3	585.9	575.5	578.3
27.5°	565.3	569.6	559.2	548.5	549.4
30°	547.7	550.5	540.1	528.7	529.6
32.5°	529.4	531.4	520.2	508.0	508.2
35°	501.9	503.8	489.5	478.1	478.1
37.5°	472.7	473.8	458.6	446.2	444.9
40°	451.3	453.2	438.0	425.5	422.7
42.5°	431.5	431.9	418.1	405.6	402.1
45°	402.7	400.8	387.4	373.9	368.3
47.5°	371.6	371.6	356.3	342.8	337.6
50°	350.2	350.2	334.9	321.5	317.8
52.5°	330.3	329.6	315.1	301.6	296.4
55°	300.6	299.6	285.3	271.9	268.1
57.5°	269.1	269.1	255.7	241.3	237.2
60°	250.0	250.0	236.6	222.2	216.6
62.5°	229.4	228.6	215.3	202.4	199.0
65°	200.4	198.5	186.1	174.6	171.8
67.5°	172.7	170.8	157.6	148.4	146.6
70°	153.6	151.8	139.3	131.6	129.8
72.5°	135.3	132.7	121.8	115.6	113.7
75°	108.8	105.0	96.4	92.5	91.6
77.5°	83.6	77.2	73.7	71.0	70.0
80°	66.8	61.2	59.2	57.2	56.3
82.5°	52.3	46.7	46.2	45.0	44.1
85°	31.5	27.8	27.7	26.7	25.8
87.5°	13.7	12.5	13.4	14.0	14.0
90°	3.8	8.6	13.6	16.5	16.5
92.5°	16.3	18.1	21.5	28.4	30.7
95°	39.0	62.2	34.3	38.3	45.1
97.5°	62.4	115.6	233.4	69.8	59.8
100°	81.2	143.7	465.0	137.3	91.2
102.5°	99.3	164.8	628.2	360.6	197.2
105°	126.4	189.8	712.2	908.3	600.4
107.5°	154.5	201.9	680.0	1321.5	1236.9
110°	172.6	217.7	661.2	1388.5	1491.2



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	191.4	236.5	642.3	1349.3	1522.6
115°	218.7	263.8	613.1	1272.4	1487.3
117.5°	247.7	292.1	606.1	1190.1	1411.2
120°	269.7	311.0	593.5	1127.6	1357.8
122.5°	284.6	329.7	577.8	1073.8	1285.6
125°	311.9	354.1	577.8	1008.8	1193.0
127.5°	333.7	377.4	578.6	933.4	1115.3
130°	346.3	392.3	581.7	883.0	1055.6
132.5°	361.2	407.3	581.0	860.3	1002.2
135°	384.6	426.8	580.8	830.8	953.6
137.5°	404.2	449.5	580.8	798.2	903.4
140°	419.9	462.1	580.8	779.2	875.1
142.5°	435.6	474.7	583.9	757.1	846.8
145°	455.2	493.6	584.7	723.8	800.5
147.5°	478.8	512.5	589.4	699.9	758.9
150°	494.5	525.1	592.6	683.9	733.8
152.5°	510.1	537.8	592.6	671.2	711.9
155°	533.7	552.9	596.5	656.0	686.7
157.5°	552.5	570.9	601.2	646.4	668.7
160°	565.1	580.4	604.3	640.1	659.3
162.5°	574.5	589.9	607.5	636.8	649.9
165°	592.6	600.2	612.2	628.1	639.6
167.5°	602.8	609.7	616.1	624.1	631.0
170°	612.2	616.0	616.1	624.0	627.9
172.5°	615.3	622.2	619.2	620.9	624.7
175°	624.0	627.8	624.0	619.9	616.1
177.5°	624.0	627.0	624.0	623.9	620.8
180°	624.0	624.0	624.0	624.0	624.0

(END OF REPORT)