

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: P644617

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

Issue Date: 2/16/2023



Test Information

Test Method: LM-79-2019
Report Number: P644617
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2203-563-26, G2-2206-689-20)
Test Lab: INNOVATION CENTER
Issue Date: 2/16/2023
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: OMN4DIP-SR4F0-100D50U930-CLBOOB-1DUDD-WW
Description: NEO-RAY CIRQUE SUSPENDED LED LUMINAIRE
DOWNLIGHT - BATWING LENS - 1000 LUMENS PER FOOT
UPLIGHT - BATWING OPTIC - 500 LUMENS PER FOOT
Light Source: 3000K CCT, 90 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

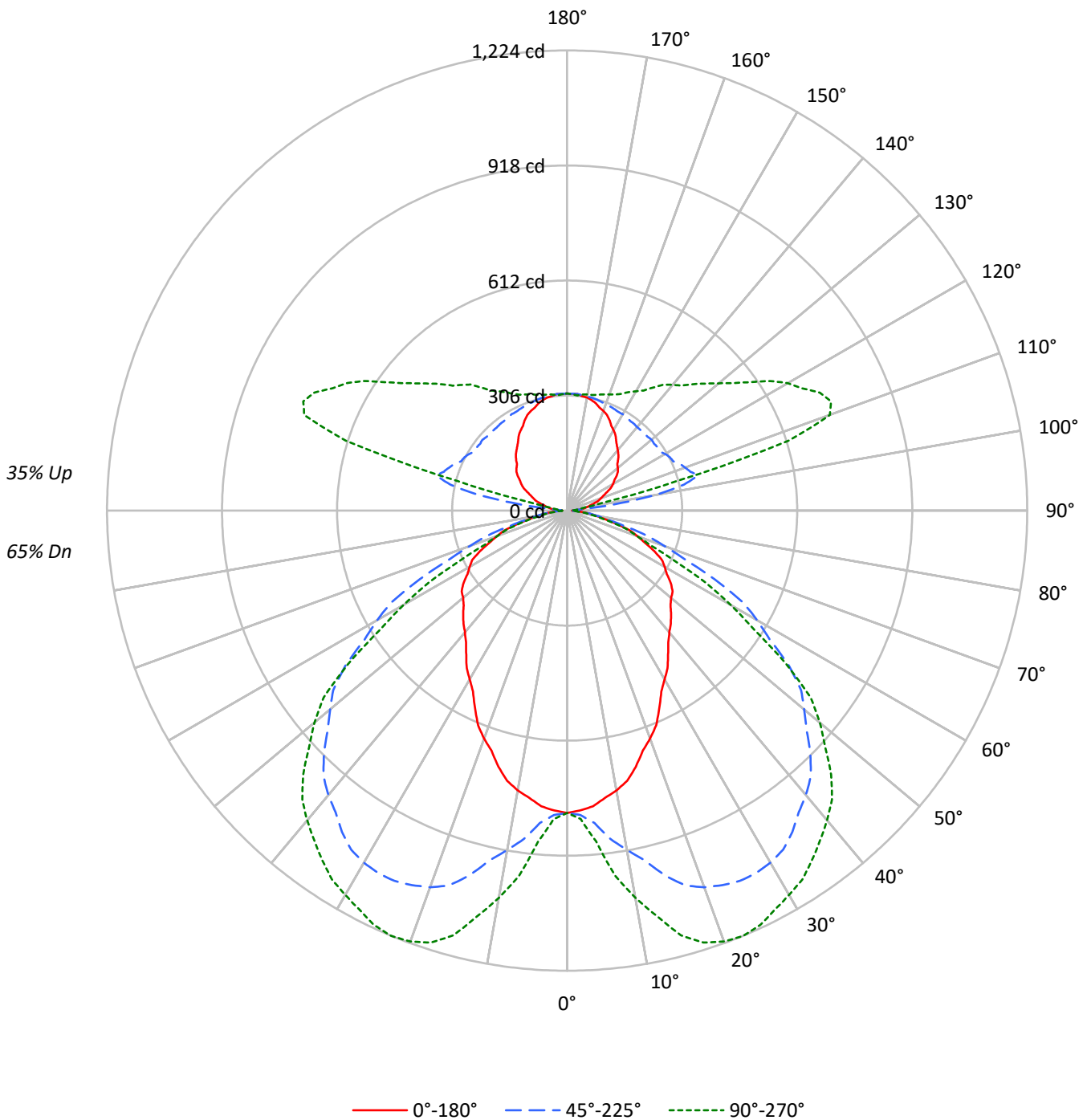
Lumens per Lamp: N/A
Luminaire Lumens: 4784.1 lumens
Efficiency: N/A
Efficacy: 107.5 lumens/watt
Spacing Criteria (0/90/45): 0.99 / 1.87 / 1.75
Luminous Opening: Rectangular (W 0.17' x L: 4' x H: 0')
CIE Type: Semi-Direct

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										
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	50	30	10	50	30	10	0														
RCR																																						
0	111	111	111	111	104	104	104	104	91	91	91	80	80	80	69	69	69	65																				
1	101	97	93	89	95	91	88	85	80	78	76	71	69	67	62	60	59	55																				
2	92	85	78	73	86	80	74	69	71	66	63	62	59	56	54	52	50	46																				
3	84	74	67	61	79	70	63	58	62	57	52	55	51	47	48	45	42	39																				
4	77	66	57	51	72	62	55	49	55	49	45	49	44	40	43	39	36	33																				
5	70	58	50	44	66	55	48	42	49	43	38	43	39	35	38	34	31	28																				
6	65	52	44	38	61	49	42	36	44	38	33	39	34	30	35	30	27	25																				
7	60	47	39	33	56	45	37	32	40	34	29	35	30	27	31	27	24	22																				
8	55	43	35	29	52	40	33	28	36	30	26	32	27	24	29	24	21	19																				
9	52	39	31	26	48	37	30	25	33	27	23	30	25	21	26	22	19	17																				
10	48	36	28	23	45	34	27	22	31	25	21	27	22	19	24	20	17	15																				

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	12988	12988	12988
5°	12794	13522	14311
10°	12391	15028	17144
15°	11789	16792	19544
20°	11089	18321	20957
25°	10331	19363	21663
30°	9661	20159	22007
35°	9219	20576	22381
40°	8911	20818	22672
45°	8928	20888	22681
50°	9068	20675	22039
55°	9478	20273	20011
60°	9665	18849	16249
65°	9792	16508	11935
70°	9361	12982	9272
75°	8403	9688	7817
80°	7132	7652	6258
85°	6928	6243	5206

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 22681 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	82.5	1.7
10°-20°	274.2	5.7
20°-30°	455.5	9.5
30°-40°	574.6	12.0
40°-50°	614.2	12.8
50°-60°	542.1	11.3
60°-70°	347.9	7.3
70°-80°	154.3	3.2
80°-90°	40.7	0.9
90°-100°	48.8	1.0
100°-110°	279.5	5.8
110°-120°	375.4	7.8
120°-130°	304.6	6.4
130°-140°	242.7	5.1
140°-150°	191.1	4.0
150°-160°	139.7	2.9
160°-170°	86.8	1.8
170°-180°	29.6	0.6
0°-30°	812.1	17.0
0°-40°	1386.7	29.0
0°-60°	2543.1	53.2
0°-90°	3086.0	64.5
90°-120°	703.6	14.7
90°-150°	1442.1	30.1
90°-180°	1698.0	35.5
0°-180°	4784.1	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	804	804	804	804	804	
5°	789	813	834	863	883	74
15°	705	813	1005	1125	1169	198
25°	580	787	1087	1188	1216	267
35°	468	718	1044	1112	1136	294
45°	391	614	915	971	993	302
55°	337	483	720	724	711	299
65°	256	324	432	351	312	251
75°	135	149	155	133	125	144
85°	37	32	34	30	28	40
90°	13	15	15	17	13	10
95°	36	42	25	23	25	33
105°	74	104	360	454	300	79
115°	117	138	311	637	742	117
125°	160	181	293	505	595	142
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°	804.4	804.4	804.4	804.4	804.4
2.5°	798.4	810.1	810.4	815.0	820.9
5°	789.4	813.2	834.3	862.9	883.0
7.5°	770.7	813.2	880.7	947.0	979.9
10°	755.8	814.3	916.6	1005.5	1045.7
12.5°	736.3	813.9	952.6	1059.5	1105.6
15°	705.3	813.2	1004.6	1125.3	1169.2
17.5°	669.3	809.8	1045.4	1166.3	1204.7
20°	645.4	806.4	1066.3	1181.3	1219.7
22.5°	618.5	798.4	1078.3	1188.7	1224.2
25°	579.9	786.6	1086.9	1188.5	1216.0
27.5°	542.1	769.7	1087.3	1173.5	1196.9
30°	518.2	756.0	1081.3	1158.5	1180.4
32.5°	497.2	740.9	1069.3	1140.5	1164.0
35°	467.7	718.3	1043.9	1111.7	1135.5
37.5°	442.2	692.5	1011.7	1077.8	1105.6
40°	422.8	671.5	987.7	1053.7	1075.7
42.5°	407.8	649.3	959.3	1023.7	1042.7
45°	391.0	614.1	914.8	971.4	993.3
47.5°	373.0	577.9	863.5	917.0	931.2
50°	361.0	551.3	823.1	871.9	877.4
52.5°	353.6	523.3	784.2	814.9	816.0
55°	336.7	483.1	720.2	723.7	710.9
57.5°	314.3	436.1	639.0	620.8	590.0
60°	299.3	403.6	583.7	547.1	503.2
62.5°	284.3	372.5	525.3	466.1	414.9
65°	256.3	324.0	432.1	350.8	312.4
67.5°	223.7	270.6	339.3	262.4	236.8
70°	198.3	234.9	275.0	214.7	196.4
72.5°	174.3	199.2	222.6	177.5	168.0
75°	134.7	149.3	155.3	132.7	125.3
77.5°	99.1	99.9	107.8	93.5	89.8
80°	76.7	73.0	82.3	71.0	67.3
82.5°	58.7	53.6	59.9	51.6	49.4
85°	37.4	31.9	33.7	29.9	28.1
87.5°	22.1	18.1	18.0	16.8	14.6
90°	13.1	15.0	15.1	17.0	13.4
92.5°	22.3	19.8	18.3	20.3	18.2
95°	36.2	42.3	25.0	23.3	25.3
97.5°	46.1	68.6	122.2	37.7	31.2
100°	54.0	81.1	236.6	71.7	46.9
102.5°	61.9	92.0	318.1	181.7	98.7
105°	73.8	104.5	360.0	454.5	299.6
107.5°	87.5	108.7	343.9	660.7	617.1
110°	95.4	116.6	334.5	694.1	744.0



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	104.8	126.0	325.1	674.6	759.7
115°	117.0	138.2	311.0	636.7	742.0
117.5°	131.2	152.3	307.5	595.6	704.1
120°	140.6	161.7	301.3	564.4	677.4
122.5°	148.4	169.6	291.9	537.6	641.4
125°	160.3	181.3	293.4	505.1	595.2
127.5°	169.8	192.7	291.9	467.2	556.4
130°	176.0	199.0	293.5	440.5	526.7
132.5°	180.9	203.8	290.5	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)