

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: P644964

Luminaire Tested: OMN4DIP-SR4F0-50D50U830-CLBOOB-1DUDD-WW

Issue Date: 2/16/2023



Test Information

Test Method: LM-79-2019
Report Number: P644964
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-SR4F0-50D50U830-CLBOOB-1DUDD-WW
Description: NEO-RAY CIRQUE SUSPENDED LED LUMINAIRE
DOWNLIGHT - BATWING LENS - 500 LUMENS PER FOOT
UPLIGHT - BATWING OPTIC - 500 LUMENS PER FOOT
Light Source: 3000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

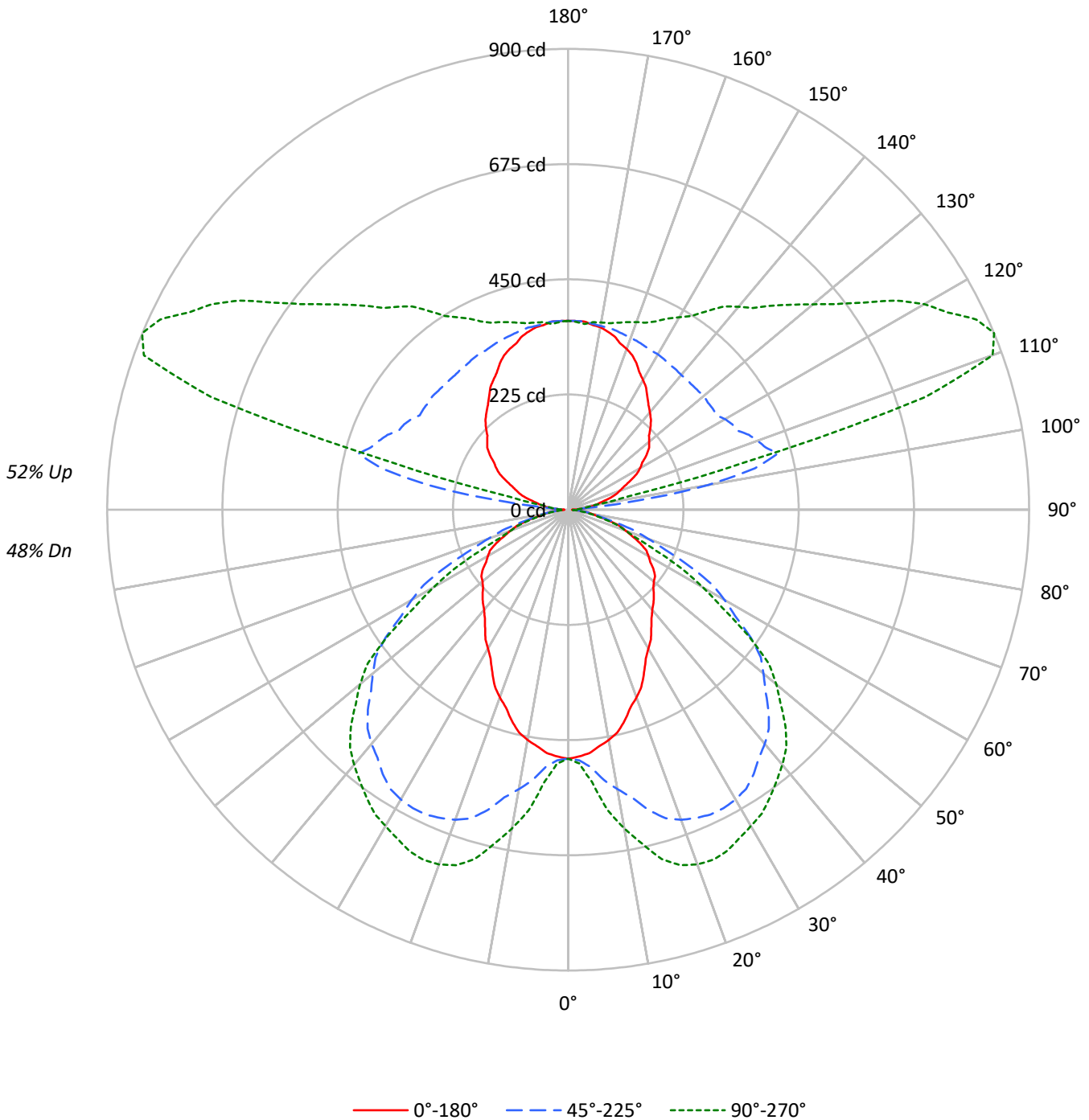
Lumens per Lamp: N/A
Luminaire Lumens: 3862.6 lumens
Efficiency: N/A
Efficacy: 133.7 lumens/watt
Spacing Criteria (0/90/45): 0.99 / 1.87 / 1.75
Luminous Opening: Rectangular (W 0.17' x L: 4' x H: 0')
CIE Type: General Diffuse

Input Watts (W): 28.9
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	107	107	107	107	98	98	98	98	82	82	82	68	68	68	55	55	55	48						48														
1	98	93	89	86	90	86	83	80	72	70	68	60	58	57	48	47	46	41						41														
2	89	81	75	70	81	75	70	65	63	60	56	53	50	47	43	41	39	34						34														
3	81	71	64	58	74	66	60	54	56	51	47	46	43	40	38	35	33	29						29														
4	74	63	55	49	68	58	51	46	49	44	40	41	37	34	33	31	28	25						25														
5	68	56	48	42	62	52	45	39	44	38	34	37	33	29	30	27	24	21						21														
6	62	50	42	36	57	46	39	34	40	34	30	33	29	25	27	24	21	18						18														
7	57	45	37	31	53	42	35	30	36	30	26	30	26	22	25	21	19	16						16														
8	53	41	33	28	49	38	31	26	32	27	23	27	23	20	22	19	17	14						14														
9	49	37	30	25	45	35	28	23	30	24	20	25	21	18	21	17	15	13						13														
10	46	34	27	22	42	32	25	21	27	22	18	23	19	16	19	16	13	12						12														

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	7850	7850	7850
5°	7733	8173	8650
10°	7489	9083	10362
15°	7126	10150	11813
20°	6703	11074	12667
25°	6244	11703	13092
30°	5839	12184	13300
35°	5572	12435	13527
40°	5385	12583	13702
45°	5396	12625	13709
50°	5481	12496	13320
55°	5728	12253	12093
60°	5842	11393	9820
65°	5918	9979	7213
70°	5655	7846	5604
75°	5078	5852	4729
80°	4314	4621	3784
85°	4187	3779	3149

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 13709 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	49.9	1.3
10°-20°	165.7	4.3
20°-30°	275.3	7.1
30°-40°	347.3	9.0
40°-50°	371.2	9.6
50°-60°	327.7	8.5
60°-70°	210.3	5.4
70°-80°	93.3	2.4
80°-90°	25.0	0.6
90°-100°	51.7	1.3
100°-110°	327.2	8.5
110°-120°	441.8	11.4
120°-130°	359.1	9.3
130°-140°	287.4	7.4
140°-150°	226.4	5.9
150°-160°	165.6	4.3
160°-170°	102.8	2.7
170°-180°	35.1	0.9
0°-30°	490.8	12.7
0°-40°	838.1	21.7
0°-60°	1537.0	39.8
0°-90°	1865.5	48.3
90°-120°	820.8	21.2
90°-150°	1693.6	43.8
90°-180°	1997.0	51.7
0°-180°	3862.6	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	486	486	486	486	486	
5°	477	492	504	522	534	45
15°	426	492	607	680	707	119
25°	350	475	657	718	735	161
35°	283	434	631	672	686	177
45°	236	371	553	587	600	183
55°	204	292	435	437	430	181
65°	155	196	261	212	189	152
75°	81	90	94	80	76	87
85°	23	19	20	18	17	24
90°	8	10	11	14	12	6
95°	31	42	24	24	28	30
105°	80	117	423	538	355	85
115°	133	159	365	753	879	133
125°	187	212	344	598	705	166
135°	227	252	343	491	564	175
145°	269	292	346	428	473	169
155°	316	327	353	388	406	145
165°	350	355	362	371	378	98
175°	369	371	369	366	364	35
180°	369	369	369	369	369	

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	486.2	486.2	486.2	486.2	486.2
2.5°	482.6	489.6	489.8	492.6	496.1
5°	477.1	491.5	504.3	521.5	533.7
7.5°	465.8	491.5	532.3	572.3	592.2
10°	456.8	492.2	554.0	607.7	632.0
12.5°	445.0	491.9	575.7	640.4	668.2
15°	426.3	491.5	607.2	680.1	706.7
17.5°	404.5	489.4	631.8	704.9	728.1
20°	390.1	487.4	644.5	714.0	737.2
22.5°	373.8	482.6	651.7	718.4	739.9
25°	350.5	475.4	656.9	718.3	734.9
27.5°	327.7	465.2	657.1	709.2	723.4
30°	313.2	456.9	653.5	700.2	713.4
32.5°	300.5	447.8	646.3	689.3	703.5
35°	282.7	434.1	630.9	671.9	686.3
37.5°	267.3	418.5	611.5	651.4	668.2
40°	255.5	405.9	597.0	636.9	650.1
42.5°	246.5	392.4	579.8	618.7	630.2
45°	236.3	371.2	552.9	587.1	600.4
47.5°	225.5	349.3	521.9	554.2	562.8
50°	218.2	333.2	497.5	527.0	530.3
52.5°	213.7	316.3	474.0	492.5	493.2
55°	203.5	292.0	435.3	437.4	429.6
57.5°	189.9	263.6	386.2	375.2	356.6
60°	180.9	243.9	352.8	330.7	304.1
62.5°	171.9	225.1	317.5	281.7	250.8
65°	154.9	195.8	261.2	212.0	188.8
67.5°	135.2	163.5	205.1	158.6	143.1
70°	119.8	142.0	166.2	129.8	118.7
72.5°	105.4	120.4	134.5	107.3	101.5
75°	81.4	90.3	93.8	80.2	75.8
77.5°	59.9	60.4	65.1	56.5	54.3
80°	46.4	44.1	49.7	42.9	40.7
82.5°	35.5	32.4	36.2	31.2	29.8
85°	22.6	19.3	20.4	18.1	17.0
87.5°	13.3	11.1	11.3	10.9	9.5
90°	7.9	10.2	11.4	13.7	11.5
92.5°	16.2	15.8	16.1	19.3	19.0
95°	31.0	42.5	24.2	24.3	27.8
97.5°	44.0	73.8	140.7	42.5	35.9
100°	54.3	89.5	277.1	82.8	54.5
102.5°	64.5	102.4	373.6	214.0	116.7
105°	79.8	117.3	423.3	537.5	354.9
107.5°	96.3	123.4	404.3	781.8	731.2
110°	106.5	132.7	393.1	821.4	881.6



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	117.7	143.8	382.0	798.2	900.1
115°	133.2	159.4	365.3	753.3	879.2
117.5°	150.2	176.1	361.1	704.7	834.2
120°	162.3	187.2	353.7	667.7	802.7
122.5°	171.6	197.4	343.5	635.9	760.0
125°	186.7	211.6	344.4	597.5	705.2
127.5°	199.0	225.3	343.7	552.7	659.3
130°	206.4	233.6	345.6	522.0	624.1
132.5°	213.9	241.1	343.8	508.6	592.5
135°	227.3	252.3	343.3	491.1	563.7
137.5°	238.9	265.7	343.3	471.9	534.0
140°	248.2	273.2	343.3	460.6	517.3
142.5°	257.5	280.6	345.2	447.6	500.6
145°	269.1	291.8	345.7	427.9	473.3
147.5°	283.0	303.0	348.4	413.7	448.7
150°	292.3	310.5	350.3	404.3	433.8
152.5°	301.6	317.9	350.3	396.8	420.8
155°	315.5	326.8	352.6	387.8	406.0
157.5°	326.6	337.5	355.4	382.2	395.3
160°	334.1	343.1	357.3	378.4	389.7
162.5°	339.6	348.7	359.1	376.5	384.2
165°	350.3	354.8	361.9	371.3	378.1
167.5°	356.3	360.4	364.2	369.0	373.0
170°	361.9	364.2	364.2	368.9	371.2
172.5°	363.8	367.8	366.1	367.1	369.3
175°	368.9	371.1	368.9	366.5	364.2
177.5°	368.9	370.7	368.9	368.8	367.0
180°	368.9	368.9	368.9	368.9	368.9

(END OF REPORT)