

Signify Classified - Internal  
Cooper Lighting Solutions Photometric Lab  
1121 Highway 74 South  
Peachtree City, GA 30269



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: P644936

Luminaire Tested: OMN4DIP-SR4F0-50D25U830-FLLOOB-1DUDD-WW

Issue Date: 2/16/2023



**Test Information**

Test Method: LM-79-2019  
Report Number: P644936  
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-SR4F0-50D25U830-FLLOOB-1DUDD-WW  
Description: NEO-RAY CIRQUE SUSPENDED LED LUMINAIRE  
DOWNLIGHT - FLAT FROSTED LENS - 500 LUMENS PER FOOT  
UPLIGHT - BATWING OPTIC - 250 LUMENS PER FOOT  
Light Source: 3000K CCT, 80 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

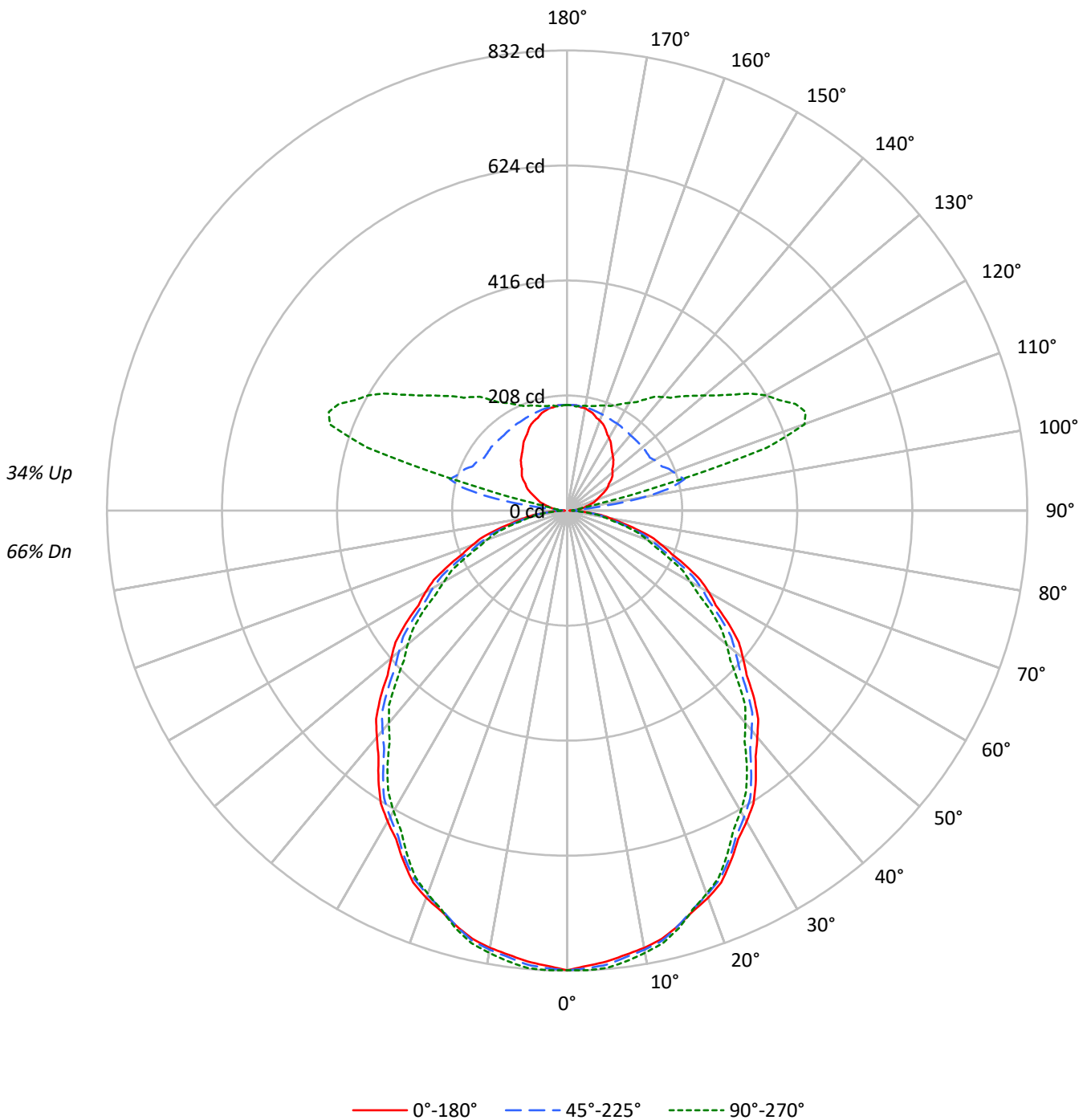
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 3054.2 lumens  
Efficiency: N/A  
Efficacy: 135.1 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): 22.6  
Input Voltage (V): 120  
Input Current (A<sub>in</sub>): 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	104	104	104	104	92	92	92		81	81	81		71	71	71	66
1	101	97	93	89	95	91	88	85	81	78	76		72	70	68		63	61	60	56
2	93	85	79	73	87	80	75	70	71	67	63		63	60	57		55	53	51	47
3	85	75	67	61	79	71	64	59	63	58	53		56	52	48		49	46	43	40
4	77	66	58	52	73	63	56	50	56	50	46		50	45	42		44	41	38	34
5	71	59	51	45	67	56	49	43	50	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	26
7	61	48	40	35	57	46	39	33	41	35	31		37	32	28		33	29	26	23
8	57	44	36	31	53	42	35	30	38	32	27		34	29	25		31	26	23	21
9	53	40	33	28	50	38	31	27	35	29	25		31	26	23		28	24	21	19
10	49	37	30	25	47	35	29	24	32	26	22		29	24	21		26	22	19	17

**AVERAGE LUMINANCE (cd/sqm):**

	0°	45°	90°
0°	13417	13417	13417
5°	13267	13358	13451
10°	13162	13218	13309
15°	12985	12985	13060
20°	12802	12704	12667
25°	12469	12367	12207
30°	12100	11930	11699
35°	11722	11432	11166
40°	11272	10939	10557
45°	10894	10481	9965
50°	10422	9970	9457
55°	10027	9517	8943
60°	9565	9055	8289
65°	9070	8424	7775
70°	8592	7794	7260
75°	8041	7124	6769
80°	7355	6518	6202
85°	6910	6076	5650

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 10894 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	78.2	2.6
10°-20°	219.4	7.2
20°-30°	319.0	10.4
30°-40°	362.8	11.9
40°-50°	353.8	11.6
50°-60°	302.0	9.9
60°-70°	219.4	7.2
70°-80°	124.1	4.1
80°-90°	38.6	1.3
90°-100°	28.3	0.9
100°-110°	170.1	5.6
110°-120°	229.0	7.5
120°-130°	186.0	6.1
130°-140°	148.9	4.9
140°-150°	117.3	3.8
150°-160°	85.8	2.8
160°-170°	53.3	1.7
170°-180°	18.2	0.6
0°-30°	616.5	20.2
0°-40°	979.3	32.1
0°-60°	1635.1	53.5
0°-90°	2017.2	66.0
90°-120°	427.5	14.0
90°-150°	879.7	28.8
90°-180°	1037.0	34.0
0°-180°	3054.2	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	831	831	831	831	831	
5°	819	831	824	823	830	78
15°	777	787	777	776	781	219
25°	700	706	694	682	685	322
35°	595	597	580	566	566	371
45°	477	475	459	443	436	367
55°	356	355	338	322	318	318
65°	237	235	220	207	204	236
75°	129	124	114	110	108	137
85°	37	33	33	32	30	40
90°	4	7	9	9	9	5
95°	19	22	13	14	16	18
105°	43	61	220	279	184	46
115°	70	82	189	390	456	69
125°	97	110	178	309	365	86
135°	118	131	178	254	292	91
145°	139	151	179	222	245	88
155°	164	169	183	201	210	75
165°	182	184	188	192	196	51
175°	191	192	191	190	189	18
180°	191	191	191	191	191	



TEST NUMBER: P644936

CATALOG NUMBER: OMN4DIP-SR4F0-50D25U830-FLLOOB-1DUDD-WW

**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	831.0	831.0	831.0	831.0	831.0
2.5°	823.8	834.4	828.3	828.4	831.9
5°	818.6	830.7	824.2	823.3	829.9
7.5°	810.0	821.9	814.3	813.1	821.8
10°	802.8	813.8	806.2	804.1	811.8
12.5°	792.8	803.9	796.2	793.2	800.9
15°	776.8	786.7	776.8	775.7	781.3
17.5°	758.7	767.3	755.7	752.0	756.2
20°	745.1	752.8	739.4	733.9	737.2
22.5°	727.9	735.6	721.4	713.1	717.3
25°	699.9	706.5	694.2	681.9	685.2
27.5°	669.8	674.9	662.6	649.9	651.0
30°	649.0	652.3	639.9	626.4	627.5
32.5°	627.3	629.7	616.4	602.0	602.2
35°	594.7	596.9	580.0	566.5	566.5
37.5°	560.1	561.4	543.4	528.7	527.1
40°	534.8	537.0	519.0	504.2	500.9
42.5°	511.3	511.7	495.4	480.7	476.5
45°	477.1	474.9	459.0	443.1	436.4
47.5°	440.3	440.3	422.2	406.2	400.0
50°	414.9	414.9	396.9	380.9	376.5
52.5°	391.4	390.5	373.3	357.4	351.2
55°	356.2	355.0	338.1	322.1	317.7
57.5°	318.8	318.8	303.0	285.9	281.1
60°	296.2	296.2	280.4	263.3	256.7
62.5°	271.8	270.9	255.1	239.8	235.9
65°	237.4	235.2	220.5	206.8	203.5
67.5°	204.6	202.4	186.8	175.9	173.7
70°	182.0	179.8	165.1	156.0	153.8
72.5°	160.3	157.2	144.3	137.0	134.8
75°	128.9	124.5	114.2	109.6	108.5
77.5°	99.0	91.5	87.3	84.1	83.0
80°	79.1	72.5	70.1	67.8	66.7
82.5°	62.0	55.3	54.7	53.3	52.2
85°	37.3	32.9	32.8	31.6	30.5
87.5°	16.3	14.1	14.5	14.5	14.5
90°	4.5	6.8	9.2	9.3	9.3
92.5°	11.0	9.8	10.3	12.2	12.3
95°	18.7	22.5	13.0	14.2	15.5
97.5°	25.0	38.8	73.8	22.9	19.2
100°	30.8	47.4	144.1	42.9	28.8
102.5°	35.6	53.2	194.1	111.3	60.6
105°	42.9	60.7	219.8	279.1	183.9
107.5°	51.3	64.4	210.0	405.6	378.9
110°	56.2	69.2	204.2	426.2	456.8



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**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°
112.5°	62.0	75.0	198.4	414.2	466.4
115°	69.5	82.5	188.7	389.8	455.6
117.5°	78.4	91.2	186.5	364.6	432.3
120°	85.1	97.0	182.6	345.4	415.9
122.5°	89.0	102.7	177.8	328.9	393.8
125°	97.2	110.2	177.8	309.0	365.4
127.5°	103.1	117.1	178.1	285.9	341.6
130°	106.9	121.0	179.0	270.5	323.4
132.5°	110.8	124.9	178.1	263.5	307.0
135°	117.8	130.7	177.9	254.5	292.1
137.5°	123.8	137.7	177.9	244.5	276.7
140°	128.6	141.6	177.9	238.7	268.1
142.5°	133.4	145.4	178.9	231.9	259.4
145°	139.4	151.2	179.1	221.7	245.2
147.5°	146.7	157.0	180.6	214.4	232.5
150°	151.5	160.9	181.5	209.5	224.8
152.5°	156.3	164.7	181.5	205.6	218.1
155°	163.5	169.4	182.7	201.0	210.4
157.5°	169.3	174.9	184.2	198.0	204.8
160°	173.1	177.8	185.1	196.1	201.9
162.5°	176.0	180.7	186.1	195.1	199.1
165°	181.5	183.9	187.5	192.4	195.9
167.5°	184.6	186.8	188.7	191.2	193.3
170°	187.5	188.7	188.7	191.2	192.3
172.5°	188.5	190.6	189.7	190.2	191.4
175°	191.1	192.3	191.1	189.9	188.7
177.5°	191.1	192.1	191.1	191.1	190.2
180°	191.1	191.1	191.1	191.1	191.1

(END OF REPORT)