

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: P645004

Luminaire Tested: OMN4DIP-SR4F0-50D75U840-FLLOOB-1DUDD-WW

Issue Date: 2/16/2023



**Test Information**

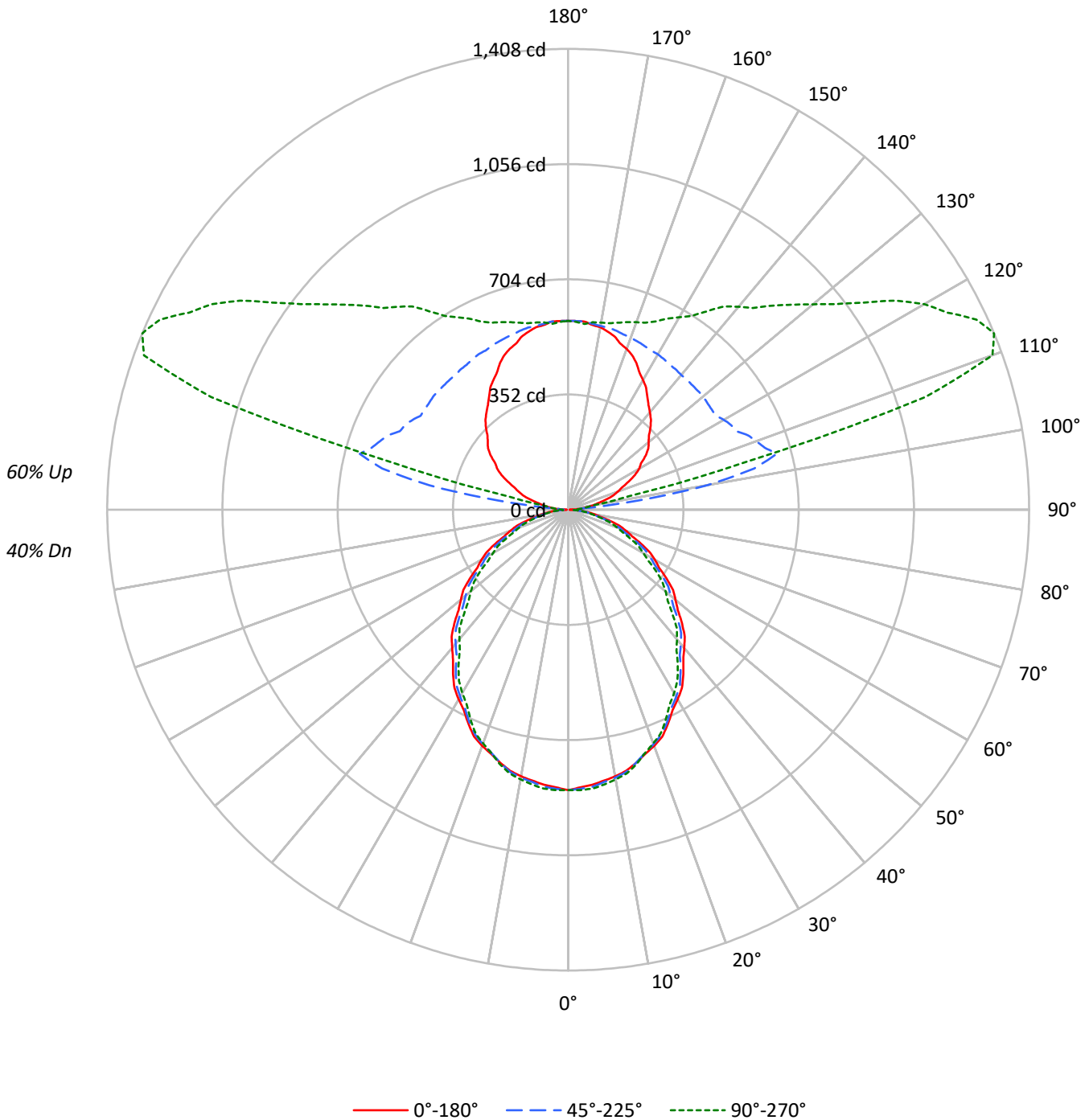
Test Method: LM-79-2019  
Report Number: P645004  
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2203-563-26, G2-2206-689-19)  
Test Lab: INNOVATION CENTER  
Issue Date: 2/16/2023  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: NEO-RAY  
Catalog Number: OMN4DIP-SR4F0-50D75U840-FLLOOB-1DUDD-WW  
Description: NEO-RAY CIRQUE SUSPENDED LED LUMINAIRE  
DOWNLIGHT - FLAT FROSTED LENS - 500 LUMENS PER FOOT  
UPLIGHT - BATWING OPTIC - 750 LUMENS PER FOOT  
Light Source: 4000K CCT, 80 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 5190.0 lumens  
Efficiency: N/A  
Efficacy: 147.9 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: General Diffuse  
  
Input Watts (W): 35.1  
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

TEST NUMBER: P645004  
CATALOG NUMBER: OMN4DIP-SR4F0-50D75U840-FLLOOB-1DUDD-WW

### Luminous Intensity Polar Plot





TEST NUMBER: P645004

CATALOG NUMBER: OMN4DIP-SR4F0-50D75U840-FLLOOB-1DUDD-WW

**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	50	30	10	0	
RCR																						
0	105	105	105	105	95	95	95	95	78	78	78	62	62	62	47	47	47	40				
1	96	91	88	84	87	83	80	77	68	66	64	54	53	51	42	41	40	34				
2	87	80	74	69	79	73	68	63	60	56	53	48	45	43	37	35	34	28				
3	79	70	63	57	72	64	58	53	53	48	45	42	39	37	33	30	29	24				
4	73	62	54	49	66	57	50	45	47	42	38	38	34	31	29	27	25	21				
5	67	55	47	42	61	51	44	39	42	37	33	34	30	27	26	24	22	18				
6	61	50	42	36	56	46	39	34	38	33	29	31	27	24	24	21	19	16				
7	57	45	37	32	52	41	34	29	34	29	25	28	24	21	22	19	17	14				
8	53	41	33	28	48	37	31	26	31	26	22	25	22	19	20	17	15	13				
9	49	37	30	25	45	34	28	23	29	24	20	23	20	17	19	16	14	12				
10	46	34	27	22	42	31	25	21	26	21	18	22	18	15	17	14	13	11				

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

	0°	45°	90°
0°	13831	13831	13831
5°	13676	13770	13864
10°	13565	13623	13719
15°	13382	13382	13461
20°	13196	13096	13055
25°	12852	12748	12581
30°	12471	12297	12059
35°	12082	11785	11509
40°	11618	11274	10882
45°	11230	10805	10271
50°	10743	10276	9748
55°	10334	9810	9219
60°	9859	9332	8541
65°	9349	8684	8015
70°	8856	8030	7482
75°	8291	7342	6981
80°	7587	6722	6397
85°	7132	6262	5835

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 11230 cd/sqm



TEST NUMBER: P645004

CATALOG NUMBER: OMN4DIP-SR4F0-50D75U840-FLLOOB-1DUDD-WW

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	80.6	1.6
10°-20°	226.1	4.4
20°-30°	328.8	6.3
30°-40°	374.0	7.2
40°-50°	364.6	7.0
50°-60°	311.3	6.0
60°-70°	226.2	4.4
70°-80°	127.9	2.5
80°-90°	40.7	0.8
90°-100°	75.9	1.5
100°-110°	508.3	9.8
110°-120°	688.0	13.3
120°-130°	559.5	10.8
130°-140°	449.4	8.7
140°-150°	354.2	6.8
150°-160°	259.0	5.0
160°-170°	160.9	3.1
170°-180°	54.9	1.1
0°-30°	635.5	12.2
0°-40°	1009.5	19.4
0°-60°	1685.4	32.5
0°-90°	2080.2	40.1
90°-120°	1272.1	24.5
90°-150°	2635.2	50.8
90°-180°	3110.0	59.9
0°-180°	5190.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	857	857	857	857	857	
5°	844	856	850	849	855	80
15°	801	811	801	800	805	226
25°	721	728	716	703	706	332
35°	613	615	598	584	584	383
45°	492	490	473	457	450	378
55°	367	366	348	332	328	328
65°	245	242	227	213	210	243
75°	133	128	118	113	112	141
85°	38	34	34	33	32	41
90°	5	9	14	17	17	6
95°	38	59	32	36	42	39
105°	118	176	659	840	555	125
115°	203	244	567	1177	1375	202
125°	289	328	535	933	1103	257
135°	356	395	537	768	882	274
145°	421	456	541	669	740	264
155°	494	511	552	607	635	227
165°	548	555	566	581	592	154
175°	577	580	577	573	570	55
180°	577	577	577	577	577	

TEST NUMBER: P645004

CATALOG NUMBER: OMN4DIP-SR4F0-50D75U840-FLLOOB-1DUDD-WW

**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	856.6	856.6	856.6	856.6	856.6
2.5°	849.1	860.1	853.8	853.9	857.5
5°	843.8	856.3	849.6	848.6	855.4
7.5°	834.9	847.2	839.3	838.1	847.0
10°	827.4	838.8	830.9	828.8	836.8
12.5°	817.2	828.6	820.7	817.6	825.6
15°	800.6	810.9	800.6	799.6	805.3
17.5°	782.0	790.9	779.0	775.1	779.4
20°	768.0	776.0	762.2	756.4	759.8
22.5°	750.3	758.3	743.5	735.0	739.3
25°	721.4	728.2	715.6	702.8	706.2
27.5°	690.4	695.6	682.9	669.9	671.0
30°	668.9	672.4	659.6	645.7	646.8
32.5°	646.6	649.1	635.4	620.5	620.7
35°	613.0	615.3	597.9	583.9	583.9
37.5°	577.3	578.7	560.1	544.9	543.3
40°	551.2	553.5	534.9	519.7	516.3
42.5°	527.0	527.5	510.7	495.4	491.1
45°	491.8	489.5	473.2	456.7	449.8
47.5°	453.8	453.8	435.2	418.7	412.3
50°	427.7	427.7	409.1	392.6	388.1
52.5°	403.5	402.6	384.8	368.4	362.0
55°	367.1	366.0	348.5	332.0	327.5
57.5°	328.6	328.6	312.3	294.7	289.7
60°	305.3	305.3	289.0	271.4	264.5
62.5°	280.2	279.3	262.9	247.2	243.1
65°	244.7	242.5	227.3	213.2	209.8
67.5°	210.9	208.7	192.5	181.3	179.0
70°	187.6	185.4	170.1	160.8	158.5
72.5°	165.3	162.1	148.7	141.2	138.9
75°	132.9	128.3	117.7	113.0	111.9
77.5°	102.1	94.3	90.0	86.7	85.5
80°	81.6	74.7	72.3	69.9	68.8
82.5°	63.9	57.0	56.4	55.0	53.8
85°	38.5	33.9	33.8	32.6	31.5
87.5°	16.8	15.0	15.9	16.4	16.4
90°	4.7	9.3	14.3	16.7	16.7
92.5°	17.1	18.1	21.1	27.4	29.4
95°	38.4	58.6	32.5	36.3	42.2
97.5°	59.7	108.1	216.6	65.0	55.6
100°	77.1	134.0	430.5	127.2	84.6
102.5°	93.6	153.3	581.5	333.8	182.4
105°	118.3	176.4	659.1	840.2	555.2
107.5°	144.2	187.6	629.4	1222.3	1143.8
110°	160.7	202.1	612.0	1284.3	1378.9



TEST NUMBER: P645004

CATALOG NUMBER: OMN4DIP-SR4F0-50D75U840-FLLOOB-1DUDD-WW

**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°
112.5°	178.1	219.6	594.6	1248.0	1408.0
115°	203.1	244.5	567.3	1176.6	1375.3
117.5°	229.9	270.7	560.7	1100.5	1304.9
120°	250.3	288.1	549.1	1042.7	1255.6
122.5°	263.8	305.5	534.6	992.9	1188.8
125°	289.0	328.0	534.6	932.8	1103.2
127.5°	308.9	349.5	535.3	863.1	1031.3
130°	320.5	363.1	538.2	816.5	976.2
132.5°	334.1	376.7	537.3	795.5	926.8
135°	355.6	394.7	537.1	768.3	881.8
137.5°	373.8	415.6	537.1	738.1	835.4
140°	388.3	427.3	537.1	720.5	809.2
142.5°	402.8	439.0	540.0	700.1	783.1
145°	420.9	456.4	540.7	669.3	740.3
147.5°	442.7	473.9	545.0	647.2	701.8
150°	457.2	485.6	548.0	632.5	678.6
152.5°	471.7	497.3	548.0	620.7	658.3
155°	493.5	511.3	551.6	606.7	635.0
157.5°	510.9	528.0	555.9	597.8	618.3
160°	522.5	536.7	558.8	591.9	609.6
162.5°	531.3	545.5	561.7	588.9	600.9
165°	548.0	555.0	566.1	580.9	591.5
167.5°	557.4	563.8	569.7	577.1	583.5
170°	566.1	569.6	569.7	577.1	580.6
172.5°	569.0	575.4	572.6	574.2	577.7
175°	577.0	580.5	577.0	573.3	569.7
177.5°	577.0	579.8	577.0	576.9	574.1
180°	577.0	577.0	577.0	577.0	577.0

(END OF REPORT)