

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: P645154

Luminaire Tested: OMN4DIP-SR4F0-75D50U840-FLLOOB-1DUDD-WW

Issue Date: 2/16/2023



**Test Information**

Test Method: LM-79-2019  
Report Number: P645154  
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-SR4F0-75D50U840-FLLOOB-1DUDD-WW  
Description: NEO-RAY CIRQUE SUSPENDED LED LUMINAIRE  
DOWNLIGHT - FLAT FROSTED LENS - 750 LUMENS PER FOOT  
UPLIGHT - BATWING OPTIC - 500 LUMENS PER FOOT  
Light Source: 4000K CCT, 80 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

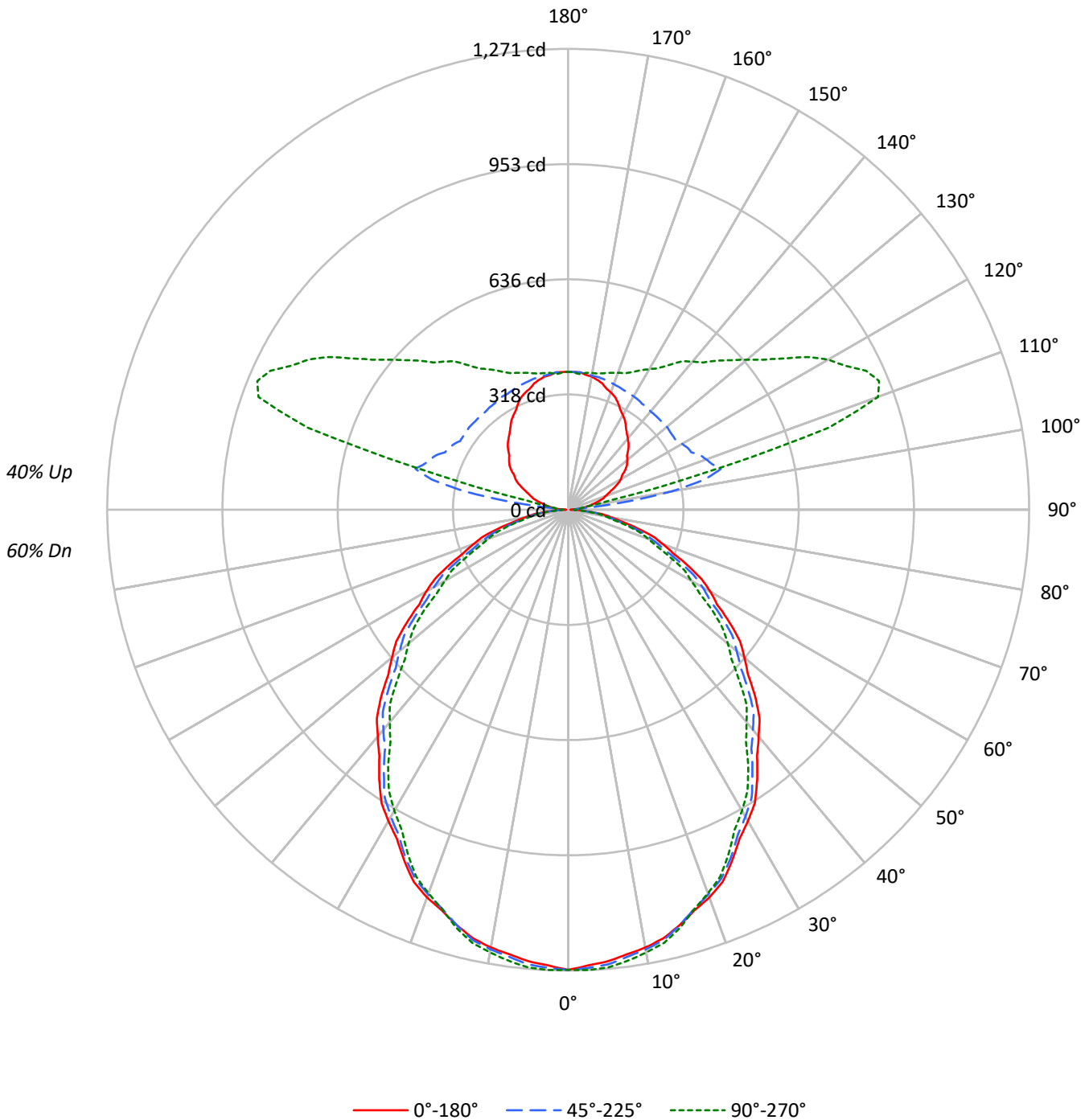
Lumens per Lamp: N/A  
Luminaire Lumens: 5139.1 lumens  
Efficiency: N/A  
Efficacy: 141.2 lumens/watt  
Spacing Criteria (0/90/45): 1.17 / 1.13 / 1.26  
Luminous Opening: Rectangular (W 0.17' x L: 4' x H: 0')  
CIE Type: General Diffuse

Input Watts (W): 36.4  
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: P645154

CATALOG NUMBER: OMN4DIP-SR4F0-75D50U840-FLLOOB-1DUDD-WW

### Luminous Intensity Polar Plot





TEST NUMBER: P645154

CATALOG NUMBER: OMN4DIP-SR4F0-75D50U840-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	0
RCR																		
0	110	110	110	110	102	102	102	102	89	89	89	77	77	77	65	65	65	60
1	100	96	92	88	93	90	86	83	78	76	73	68	66	64	58	56	55	51
2	91	84	78	72	85	78	73	68	69	64	61	59	56	54	51	49	47	43
3	83	74	66	60	78	69	63	57	61	56	51	53	49	46	45	42	40	36
4	76	65	57	51	71	61	54	49	54	48	44	47	43	39	41	37	35	31
5	70	58	50	44	65	55	48	42	48	43	38	42	38	34	37	33	30	27
6	65	53	44	38	60	49	42	37	44	38	33	38	34	30	33	30	27	24
7	60	48	39	34	56	45	38	32	40	34	29	35	30	27	31	27	24	21
8	56	43	35	30	52	41	34	29	36	30	26	32	27	24	28	24	21	19
9	52	40	32	27	49	37	31	26	33	28	24	30	25	21	26	22	19	17
10	49	36	29	24	45	34	28	23	31	25	21	27	23	20	24	20	18	16

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

	0°	45°	90°
0°	20492	20492	20492
5°	20263	20404	20543
10°	20102	20185	20328
15°	19829	19829	19945
20°	19553	19405	19345
25°	19042	18889	18643
30°	18480	18222	17868
35°	17903	17461	17051
40°	17216	16706	16124
45°	16639	16009	15221
50°	15918	15224	14443
55°	15313	14534	13658
60°	14609	13831	12658
65°	13853	12863	11874
70°	13124	11901	11084
75°	12283	10880	10343
80°	11241	9958	9475
85°	10559	9281	8633

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 16639 cd/sqm



TEST NUMBER: P645154

CATALOG NUMBER: OMN4DIP-SR4F0-75D50U840-FLLOOB-1DUDD-WW

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	119.4	2.3
10°-20°	335.0	6.5
20°-30°	487.2	9.5
30°-40°	554.2	10.8
40°-50°	540.3	10.5
50°-60°	461.2	9.0
60°-70°	335.2	6.5
70°-80°	189.5	3.7
80°-90°	59.2	1.2
90°-100°	54.1	1.1
100°-110°	337.2	6.6
110°-120°	454.7	8.8
120°-130°	369.5	7.2
130°-140°	296.2	5.8
140°-150°	233.4	4.5
150°-160°	170.7	3.3
160°-170°	106.0	2.1
170°-180°	36.1	0.7
0°-30°	941.6	18.3
0°-40°	1495.7	29.1
0°-60°	2497.3	48.6
0°-90°	3081.2	60.0
90°-120°	846.1	16.5
90°-150°	1745.2	34.0
90°-180°	2058.0	40.0
0°-180°	5139.1	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1269	1269	1269	1269	1269	
5°	1250	1269	1259	1257	1268	119
15°	1186	1202	1186	1185	1193	334
25°	1069	1079	1060	1041	1046	492
35°	908	912	886	865	865	567
45°	729	725	701	677	667	561
55°	544	542	516	492	485	485
65°	363	359	337	316	311	360
75°	197	190	174	168	166	209
85°	57	50	50	48	47	61
90°	7	11	15	16	16	8
95°	33	43	24	27	30	32
105°	83	119	436	555	366	88
115°	137	163	375	775	906	136
125°	192	218	353	615	727	171
135°	234	260	354	506	581	181
145°	277	301	356	441	488	174
155°	325	337	364	400	418	149
165°	361	366	373	383	390	101
175°	380	382	380	378	375	36
180°	380	380	380	380	380	

TEST NUMBER: P645154

CATALOG NUMBER: OMN4DIP-SR4F0-75D50U840-FLLOOB-1DUDD-WW

**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1269.2	1269.2	1269.2	1269.2	1269.2
2.5°	1258.2	1274.4	1265.1	1265.2	1270.6
5°	1250.2	1268.8	1258.9	1257.4	1267.5
7.5°	1237.1	1255.3	1243.7	1241.9	1255.1
10°	1226.1	1242.9	1231.2	1228.0	1239.9
12.5°	1210.9	1227.7	1216.0	1211.5	1223.3
15°	1186.3	1201.5	1186.3	1184.8	1193.2
17.5°	1158.7	1171.9	1154.2	1148.5	1154.9
20°	1138.0	1149.8	1129.4	1120.8	1125.9
22.5°	1111.7	1123.6	1101.7	1089.1	1095.5
25°	1068.9	1079.0	1060.3	1041.4	1046.5
27.5°	1023.0	1030.7	1011.9	992.6	994.3
30°	991.2	996.3	977.4	956.7	958.4
32.5°	958.0	961.8	941.5	919.4	919.7
35°	908.3	911.7	885.9	865.1	865.1
37.5°	855.5	857.5	829.9	807.4	805.1
40°	816.8	820.2	792.6	770.1	765.0
42.5°	780.9	781.6	756.7	734.1	727.7
45°	728.7	725.3	701.1	676.7	666.6
47.5°	672.4	672.4	644.8	620.4	611.0
50°	633.7	633.7	606.1	581.8	575.0
52.5°	597.8	596.5	570.2	545.8	536.4
55°	544.0	542.3	516.3	492.0	485.2
57.5°	487.0	487.0	462.8	436.7	429.3
60°	452.4	452.4	428.3	402.1	392.0
62.5°	415.1	413.8	389.6	366.3	360.2
65°	362.6	359.3	336.7	315.9	310.8
67.5°	312.6	309.2	285.3	268.6	265.2
70°	278.0	274.6	252.1	238.2	234.8
72.5°	244.9	240.1	220.3	209.2	205.8
75°	196.9	190.1	174.4	167.5	165.8
77.5°	151.3	139.8	133.3	128.4	126.7
80°	120.9	110.7	107.1	103.6	101.9
82.5°	94.6	84.5	83.6	81.5	79.8
85°	57.0	50.2	50.1	48.3	46.6
87.5°	24.9	21.6	22.4	22.5	22.5
90°	6.9	10.9	15.1	15.8	15.8
92.5°	18.2	16.8	18.1	22.1	22.6
95°	32.9	42.6	24.3	26.8	29.8
97.5°	46.0	75.1	145.4	44.6	37.6
100°	57.5	92.2	285.6	84.8	56.7
102.5°	67.6	104.2	385.1	220.9	120.4
105°	82.8	119.1	436.3	554.6	365.9
107.5°	99.6	126.5	416.7	806.4	753.7
110°	109.7	136.1	405.2	847.2	908.7



TEST NUMBER: P645154

CATALOG NUMBER: OMN4DIP-SR4F0-75D50U840-FLLOOB-1DUDD-WW

**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°
112.5°	121.2	147.6	393.7	823.3	927.8
115°	136.7	163.1	374.8	775.3	906.3
117.5°	154.4	180.3	370.5	725.2	859.9
120°	167.8	191.8	362.8	687.1	827.4
122.5°	176.0	203.2	353.2	654.3	783.4
125°	192.4	218.1	353.2	614.7	726.9
127.5°	204.5	232.0	353.7	568.8	679.6
130°	212.2	240.2	355.6	538.0	643.2
132.5°	220.3	248.4	354.2	524.2	610.7
135°	234.3	260.1	353.9	506.2	581.1
137.5°	246.3	273.9	353.9	486.4	550.5
140°	255.9	281.6	353.9	474.8	533.2
142.5°	265.4	289.3	355.8	461.3	516.0
145°	277.4	300.8	356.3	441.0	487.8
147.5°	291.7	312.3	359.2	426.5	462.5
150°	301.3	320.0	361.1	416.8	447.2
152.5°	310.9	327.7	361.1	409.0	433.8
155°	325.2	336.9	363.5	399.8	418.5
157.5°	336.7	347.9	366.3	393.9	407.5
160°	344.3	353.7	368.2	390.0	401.7
162.5°	350.1	359.4	370.2	388.0	396.0
165°	361.1	365.7	373.0	382.8	389.8
167.5°	367.3	371.5	375.4	380.3	384.5
170°	373.0	375.4	375.4	380.3	382.6
172.5°	374.9	379.1	377.3	378.3	380.7
175°	380.2	382.5	380.2	377.8	375.4
177.5°	380.2	382.1	380.2	380.2	378.3
180°	380.2	380.2	380.2	380.2	380.2

(END OF REPORT)