

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: P645146

Luminaire Tested: OMN4DIP-SR4F0-75D50U830-FLLOOB-1DUDD-WW

Issue Date: 2/16/2023



**Test Information**

Test Method: LM-79-2019  
Report Number: P645146  
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-SR4F0-75D50U830-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: 3000K CCT, 80 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

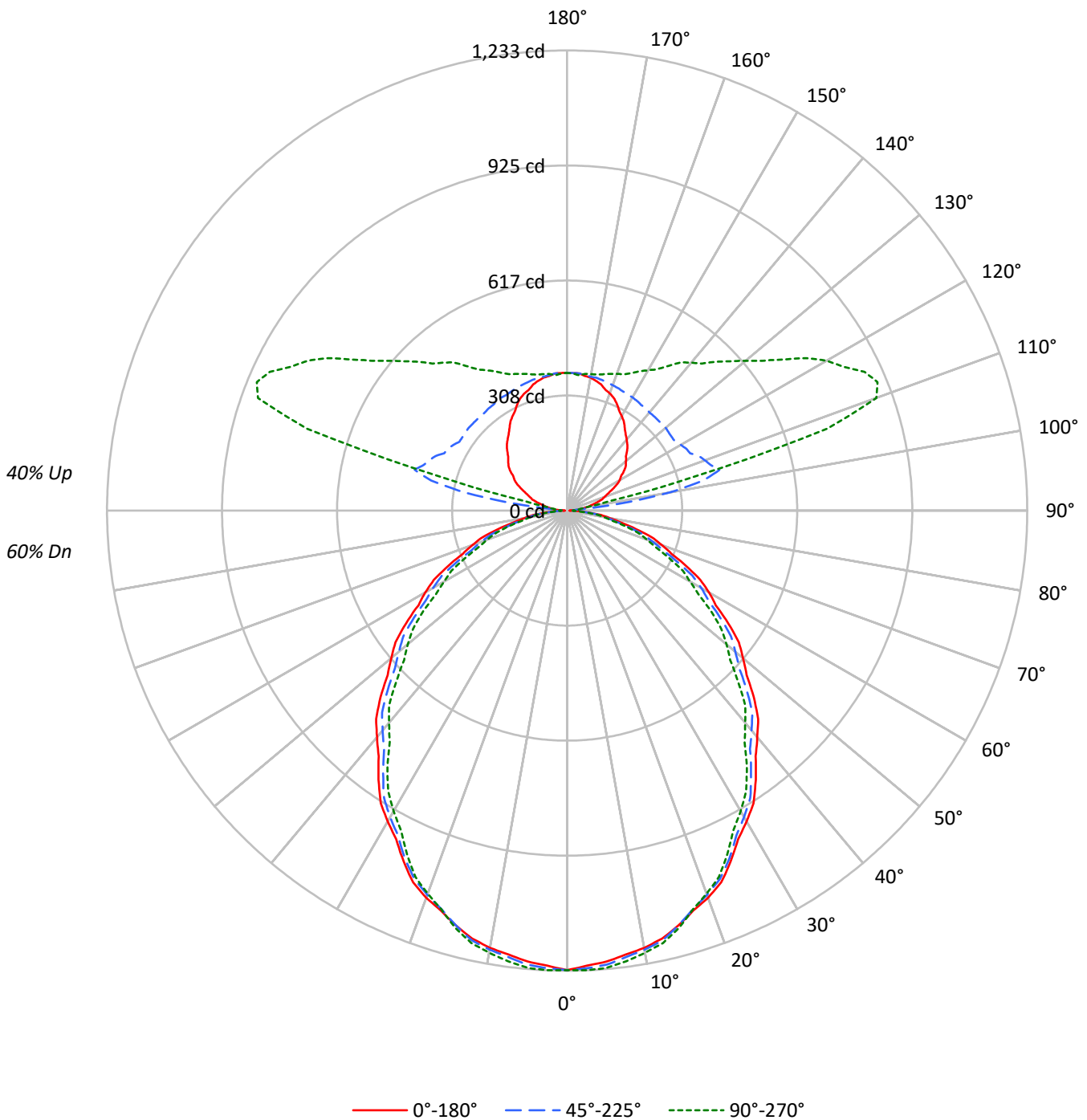
Lumens per Lamp: N/A  
Luminaire Lumens: 4985.8 lumens  
Efficiency: N/A  
Efficacy: 137.0 lumens/watt  
Spacing Criteria (0/90/45): 1.17 / 1.13 / 1.26  
Luminous Opening: Rectangular (W 0.17' x L: 4' x H: 0')  
CIE Type: General Diffuse

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

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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									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	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°	19882	19882	19882
5°	19658	19794	19930
10°	19502	19584	19721
15°	19239	19239	19351
20°	18969	18826	18768
25°	18474	18326	18088
30°	17928	17678	17335
35°	17369	16939	16543
40°	16701	16208	15643
45°	16143	15531	14767
50°	15443	14770	14014
55°	14854	14100	13253
60°	14173	13417	12281
65°	13440	12481	11522
70°	12732	11547	10754
75°	11915	10555	10031
80°	10907	9661	9186
85°	10244	9003	8373

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 16143 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	115.8	2.3
10°-20°	325.1	6.5
20°-30°	472.6	9.5
30°-40°	537.6	10.8
40°-50°	524.2	10.5
50°-60°	447.4	9.0
60°-70°	325.2	6.5
70°-80°	183.9	3.7
80°-90°	57.4	1.2
90°-100°	52.5	1.1
100°-110°	327.2	6.6
110°-120°	441.2	8.8
120°-130°	358.5	7.2
130°-140°	287.3	5.8
140°-150°	226.4	4.5
150°-160°	165.6	3.3
160°-170°	102.8	2.1
170°-180°	35.1	0.7
0°-30°	913.5	18.3
0°-40°	1451.1	29.1
0°-60°	2422.8	48.6
0°-90°	2989.3	60.0
90°-120°	820.8	16.5
90°-150°	1693.1	34.0
90°-180°	1997.0	40.1
0°-180°	4985.8	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1231	1231	1231	1231	1231	
5°	1213	1231	1221	1220	1230	115
15°	1151	1166	1151	1150	1158	324
25°	1037	1047	1029	1010	1015	477
35°	881	884	859	839	839	550
45°	707	704	680	656	647	544
55°	528	526	501	477	471	471
65°	352	348	327	306	302	349
75°	191	184	169	162	161	203
85°	55	49	49	47	45	59
90°	7	11	15	15	15	8
95°	32	41	24	26	29	31
105°	80	116	423	538	355	85
115°	133	158	364	752	879	132
125°	187	212	343	596	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°	1231.4	1231.4	1231.4	1231.4	1231.4
2.5°	1220.6	1236.4	1227.3	1227.5	1232.7
5°	1212.9	1231.0	1221.3	1219.9	1229.7
7.5°	1200.2	1217.9	1206.6	1204.9	1217.6
10°	1189.5	1205.9	1194.5	1191.4	1202.9
12.5°	1174.7	1191.1	1179.8	1175.3	1186.8
15°	1151.0	1165.7	1151.0	1149.5	1157.7
17.5°	1124.1	1136.9	1119.8	1114.2	1120.5
20°	1104.0	1115.5	1095.7	1087.4	1092.3
22.5°	1078.6	1090.0	1068.9	1056.6	1062.8
25°	1037.0	1046.9	1028.7	1010.3	1015.3
27.5°	992.5	1000.0	981.7	963.0	964.7
30°	961.6	966.6	948.2	928.2	929.8
32.5°	929.5	933.1	913.4	892.0	892.3
35°	881.2	884.5	859.4	839.3	839.3
37.5°	830.0	831.9	805.2	783.3	781.0
40°	792.4	795.7	769.0	747.1	742.2
42.5°	757.6	758.2	734.1	712.2	706.0
45°	707.0	703.7	680.2	656.5	646.7
47.5°	652.4	652.4	625.6	601.9	592.7
50°	614.8	614.8	588.0	564.4	557.9
52.5°	580.0	578.7	553.2	529.5	520.4
55°	527.7	526.1	500.9	477.3	470.8
57.5°	472.4	472.4	449.0	423.7	416.5
60°	438.9	438.9	415.5	390.1	380.3
62.5°	402.8	401.4	378.0	355.4	349.5
65°	351.8	348.5	326.7	306.5	301.6
67.5°	303.2	300.0	276.8	260.6	257.3
70°	269.7	266.5	244.6	231.1	227.8
72.5°	237.6	233.0	213.8	203.0	199.7
75°	191.0	184.4	169.2	162.5	160.8
77.5°	146.8	135.6	129.3	124.6	123.0
80°	117.3	107.4	103.9	100.5	98.8
82.5°	91.8	82.0	81.1	79.0	77.4
85°	55.3	48.7	48.6	46.9	45.2
87.5°	24.1	21.0	21.7	21.8	21.8
90°	6.7	10.6	14.7	15.3	15.3
92.5°	17.6	16.3	17.6	21.4	21.9
95°	32.0	41.3	23.6	26.0	28.9
97.5°	44.7	72.9	141.1	43.2	36.5
100°	55.8	89.5	277.1	82.3	55.0
102.5°	65.6	101.1	373.6	214.3	116.8
105°	80.3	115.6	423.3	538.0	354.9
107.5°	96.7	122.7	404.2	782.3	731.2
110°	106.5	132.0	393.1	822.0	881.6

TEST NUMBER: P645146

CATALOG NUMBER: OMN4DIP-SR4F0-75D50U830-FLLOOB-1DUDD-WW

**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°
112.5°	117.6	143.2	382.0	798.8	900.1
115°	132.6	158.2	363.6	752.2	879.2
117.5°	149.8	174.9	359.4	703.6	834.2
120°	162.8	186.1	352.0	666.6	802.7
122.5°	170.7	197.2	342.7	634.8	760.0
125°	186.6	211.6	342.7	596.4	705.2
127.5°	198.4	225.1	343.2	551.8	659.3
130°	205.8	233.0	345.0	522.0	624.1
132.5°	213.8	241.0	343.7	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)