

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: P644410

Luminaire Tested: CRQ4DIP-SR4F0-75D125U940-FLLOOB-1DUDD-WW

Issue Date: 2/20/2023



Test Information

Test Method: LM-79-2019
Report Number: P644410
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2203-563-26, G2-2206-689-14)
Test Lab: INNOVATION CENTER
Issue Date: 2/20/2023
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: CRQ4DIP-SR4F0-75D125U940-FLLOOB-1DUDD-WW
Description: NEO-RAY CIRQUE SUSPENDED LED LUMINAIRE
DOWNLIGHT - CURVED FROSTED LENS - 750 LUMENS PER FOOT
UPLIGHT - BATWING OPTIC - 1250 LUMENS PER FOOT
Light Source: 4000K CCT, 90 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

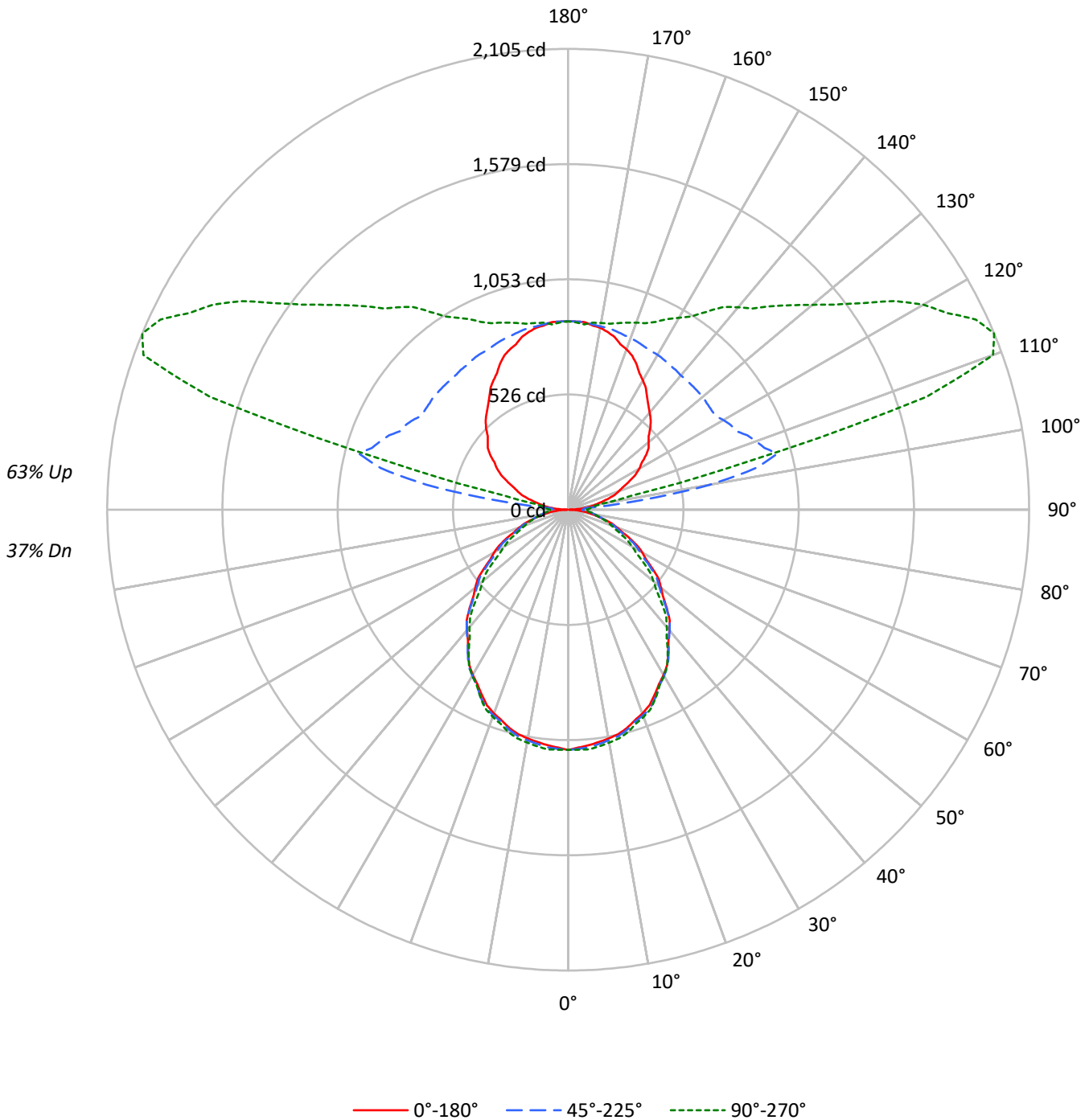
Lumens per Lamp: N/A
Luminaire Lumens: 7452.7 lumens
Efficiency: N/A
Efficacy: 124.2 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.19 / 1.3
Luminous Opening: Rectangular w/ Sides (W: 0.17' x L: 4' x H: 0.33')
CIE Type: Semi-Indirect

Input Watts (W): 60
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				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	104	104	104	104	94	94	94	94	76	76	76	60	60	60	44	44	44	37
1	95	90	87	83	86	82	79	76	67	64	62	52	51	49	39	38	37	31
2	86	79	73	68	78	72	67	62	58	55	52	46	43	41	34	33	31	26
3	79	69	62	57	71	63	57	52	51	47	43	41	38	35	31	28	27	22
4	72	61	54	48	65	56	49	44	46	41	37	36	33	30	27	25	23	19
5	66	55	47	41	60	50	43	38	41	36	32	32	29	26	25	22	20	17
6	61	49	41	35	55	45	38	33	37	32	28	29	26	23	22	20	18	15
7	56	44	36	31	51	40	34	29	33	28	24	27	23	20	20	18	16	13
8	52	40	33	27	47	37	30	25	30	25	22	24	21	18	19	16	14	12
9	48	37	29	24	44	34	27	23	28	23	19	22	19	16	17	15	13	11
10	45	33	26	22	41	31	24	20	26	21	17	21	17	14	16	13	12	10

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	17715	17715	17715
5°	17379	15641	15155
10°	17151	13916	13091
15°	16900	12462	11451
20°	16513	11179	10016
25°	15998	9983	8729
30°	15491	8822	7576
35°	14806	7758	6503
40°	14166	6792	5513
45°	13424	5838	4600
50°	12640	4944	3774
55°	11813	4160	3043
60°	11019	3410	2433
65°	10044	2719	1925
70°	9108	2131	1521
75°	7966	1637	1199
80°	6655	1217	934
85°	4848	885	710

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 13424 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	103.6	1.4
10°-20°	293.9	3.9
20°-30°	433.8	5.8
30°-40°	498.8	6.7
40°-50°	483.8	6.5
50°-60°	405.0	5.4
60°-70°	291.8	3.9
70°-80°	178.3	2.4
80°-90°	88.6	1.2
90°-100°	140.1	1.9
100°-110°	766.3	10.3
110°-120°	1027.8	13.8
120°-130°	834.8	11.2
130°-140°	670.2	9.0
140°-150°	528.2	7.1
150°-160°	386.2	5.2
160°-170°	239.9	3.2
170°-180°	81.8	1.1
0°-30°	831.2	11.2
0°-40°	1330.0	17.8
0°-60°	2218.8	29.8
0°-90°	2777.5	37.3
90°-120°	1934.2	26.0
90°-150°	3967.3	53.2
90°-180°	4675.0	62.7
0°-180°	7452.7	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1097	1097	1097	1097	1097	
5°	1080	1100	1089	1091	1099	102
15°	1034	1049	1040	1045	1052	291
25°	933	948	945	941	947	430
35°	795	807	800	792	792	498
45°	637	643	632	614	604	491
55°	470	476	459	430	417	421
65°	310	312	296	274	266	308
75°	167	167	170	166	163	179
85°	51	62	85	91	91	54
90°	5	36	67	81	83	8
95°	59	94	76	92	104	62
105°	183	264	987	1265	845	193
115°	308	366	847	1758	2054	306
125°	434	489	797	1391	1645	385
135°	530	588	801	1146	1315	408
145°	628	681	806	998	1104	394
155°	736	762	823	905	947	338
165°	817	828	844	866	882	229
175°	860	866	860	855	850	81
180°	860	860	860	860	860	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1097.2	1097.2	1097.2	1097.2	1097.2
2.5°	1087.3	1103.0	1093.5	1096.0	1097.2
5°	1080.1	1099.8	1089.4	1091.1	1098.7
7.5°	1070.2	1088.4	1079.2	1081.3	1090.0
10°	1061.5	1079.7	1069.3	1072.6	1080.1
12.5°	1050.4	1067.3	1059.4	1062.6	1070.2
15°	1033.6	1048.8	1039.8	1044.7	1052.2
17.5°	1008.8	1025.2	1015.7	1018.3	1025.9
20°	990.2	1005.4	999.5	999.7	1007.3
22.5°	967.9	984.3	979.7	976.2	985.0
25°	932.9	948.1	945.3	940.8	946.9
27.5°	898.2	909.4	904.1	899.5	904.1
30°	870.9	884.6	875.6	871.0	875.6
32.5°	841.2	854.8	845.8	840.0	842.1
35°	795.0	807.1	799.6	791.9	791.9
37.5°	751.3	759.2	754.1	741.0	737.6
40°	719.1	728.1	720.6	705.0	700.5
42.5°	685.6	694.7	685.9	669.0	662.0
45°	636.9	643.0	632.3	613.5	604.4
47.5°	586.7	593.1	578.3	557.6	546.7
50°	553.2	560.8	542.4	520.4	508.3
52.5°	521.0	526.2	508.9	483.3	472.3
55°	469.6	475.6	458.7	430.5	416.9
57.5°	421.5	427.3	407.3	380.4	369.8
60°	390.5	395.1	375.0	346.9	336.3
62.5°	355.8	360.4	341.6	317.1	306.5
65°	309.9	311.5	296.0	274.1	266.5
67.5°	266.9	266.9	253.8	237.6	231.5
70°	237.1	237.1	227.8	215.3	209.2
72.5°	209.8	208.6	203.0	194.2	189.4
75°	167.4	167.4	170.5	165.7	162.7
77.5°	130.2	127.7	141.0	140.4	138.9
80°	105.4	105.4	122.4	125.5	124.0
82.5°	83.1	85.5	107.5	111.9	110.3
85°	51.1	61.7	85.2	91.4	91.4
87.5°	23.2	42.8	69.1	78.3	78.6
90°	4.6	35.7	66.6	81.4	82.9
92.5°	22.6	41.5	69.7	88.9	95.8
95°	58.8	94.3	75.8	92.4	104.5
97.5°	95.4	163.3	341.8	126.5	115.6
100°	121.4	200.8	657.2	214.4	153.9
102.5°	146.2	229.7	877.3	517.4	294.9
105°	183.3	264.1	987.3	1265.3	845.0
107.5°	220.4	279.3	939.5	1829.8	1716.0
110°	245.1	301.0	912.3	1919.8	2064.2



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	271.1	327.0	886.3	1863.2	2105.0
115°	308.5	365.9	847.3	1757.8	2054.1
117.5°	346.7	404.9	837.3	1642.5	1947.3
120°	375.7	430.9	818.7	1554.9	1872.4
122.5°	397.4	455.6	797.1	1480.8	1772.9
125°	433.7	488.9	797.1	1391.2	1645.1
127.5°	463.2	521.3	798.1	1287.2	1538.0
130°	479.3	542.8	802.5	1217.6	1455.7
132.5°	498.5	562.0	801.2	1186.4	1382.1
135°	530.3	588.5	800.9	1145.7	1315.0
137.5°	557.4	619.8	800.9	1100.8	1245.8
140°	579.0	637.3	800.9	1074.5	1206.8
142.5°	600.7	654.7	805.3	1044.0	1167.8
145°	627.8	680.7	806.3	998.1	1104.0
147.5°	660.2	706.8	812.8	965.1	1046.6
150°	681.9	724.2	817.2	943.2	1012.0
152.5°	703.5	741.6	817.2	925.6	981.7
155°	736.0	762.4	822.6	904.7	947.0
157.5°	762.0	787.4	829.1	891.5	922.1
160°	779.3	800.4	833.4	882.7	909.2
162.5°	792.3	813.4	837.7	878.2	896.2
165°	817.2	827.7	844.2	866.2	882.1
167.5°	831.2	840.8	849.6	860.7	870.2
170°	844.2	849.5	849.6	860.6	865.9
172.5°	848.5	858.1	854.0	856.2	861.5
175°	860.5	865.7	860.5	854.9	849.6
177.5°	860.5	864.7	860.5	860.4	856.1
180°	860.5	860.5	860.5	860.5	860.5

(END OF REPORT)