

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: P644409

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

Issue Date: 2/20/2023



Test Information

Test Method: LM-79-2019
Report Number: P644409
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2206-689-28, 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-FLLFLL-1DUDD-WW
Description: NEO-RAY CIRQUE SUSPENDED LED LUMINAIRE
DOWNLIGHT - CURVED FROSTED LENS - 750 LUMENS PER FOOT
UPLIGHT - CURVED FROSTED LENS - 1250 LUMENS PER FOOT
Light Source: 4000K CCT, 90 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

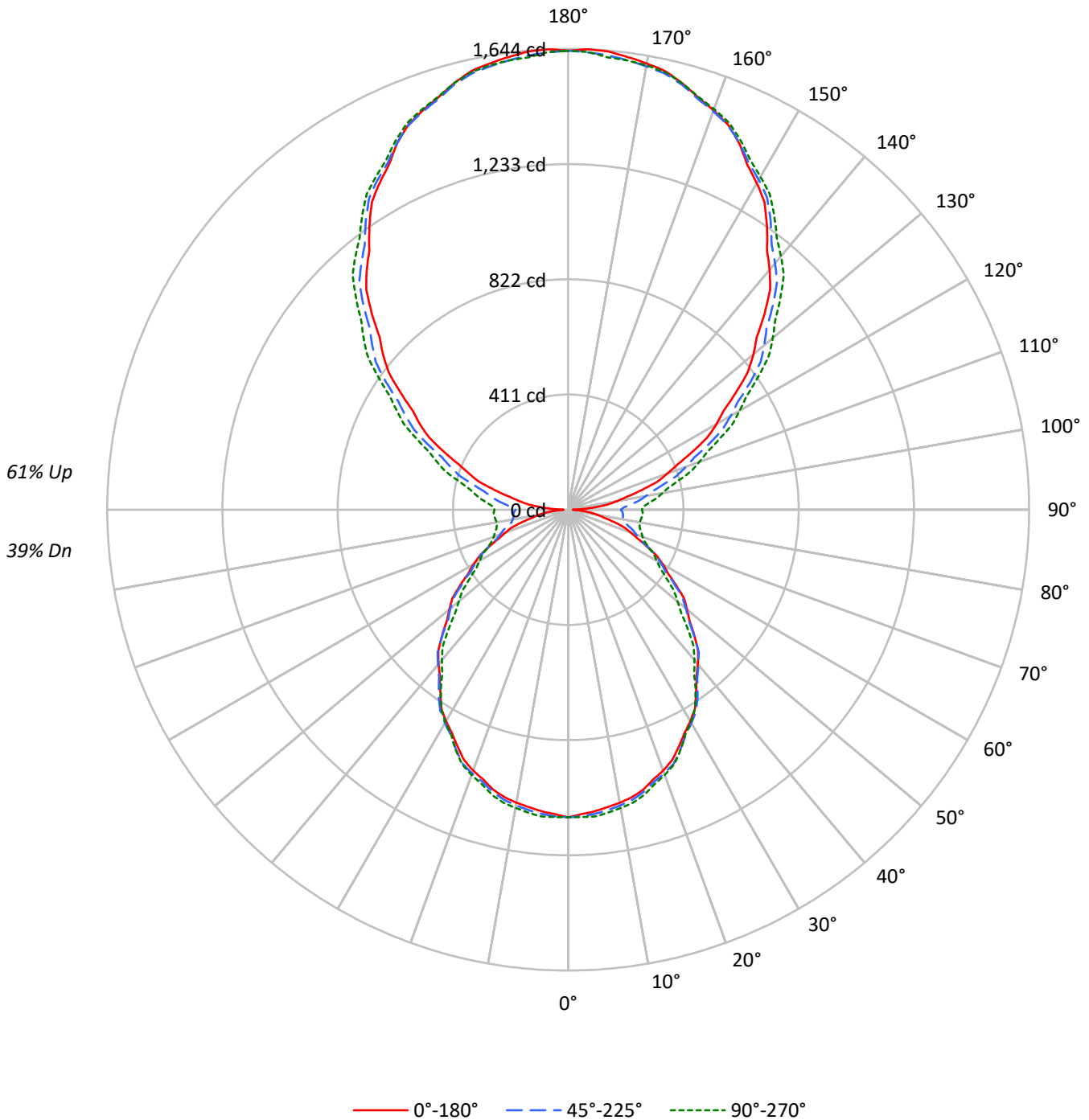
Lumens per Lamp: N/A
Luminaire Lumens: 7663.7 lumens
Efficiency: N/A
Efficacy: 127.7 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.19 / 1.3
Luminous Opening: Rectangular w/ Sides (W: 0.17' x L: 4' x H: 0.33')
CIE Type: Semi-Indirect

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	95	95	95	95	77	77	77		61	61	61		46	46	46	39
1	95	90	86	82	86	82	78	75	66	64	62		52	51	49		39	38	37	31
2	86	78	72	67	78	71	66	61	58	54	51		46	43	41		34	33	31	26
3	78	69	61	56	71	63	56	51	51	46	43		40	37	34		30	28	26	22
4	72	61	53	47	65	55	49	43	45	40	36		36	32	29		27	25	23	19
5	66	54	46	40	59	49	42	37	41	35	31		32	28	25		25	22	20	16
6	60	48	40	35	55	44	37	32	36	31	27		29	25	22		22	20	17	14
7	56	44	36	30	51	40	33	28	33	28	24		27	23	20		20	18	16	13
8	52	40	32	27	47	36	30	25	30	25	21		24	20	17		19	16	14	11
9	48	36	29	24	44	33	27	22	28	22	19		22	18	16		17	15	13	10
10	45	33	26	21	41	30	24	20	25	20	17		21	17	14		16	13	11	9

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	17715	17715	17715
5°	17379	15641	15155
10°	17151	13938	13091
15°	16900	12483	11451
20°	16513	11199	10016
25°	15998	9983	8729
30°	15491	8856	7576
35°	14806	7809	6503
40°	14166	6808	5513
45°	13424	5854	4600
50°	12640	4992	3774
55°	11813	4192	3132
60°	11019	3473	2634
65°	10044	2879	2277
70°	9108	2406	2051
75°	7966	2121	1955
80°	6655	1994	1955
85°	4848	2041	2059

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°	294.1	3.8
20°-30°	434.4	5.7
30°-40°	500.1	6.5
40°-50°	485.5	6.3
50°-60°	410.9	5.4
60°-70°	315.0	4.1
70°-80°	233.7	3.0
80°-90°	192.9	2.5
90°-100°	229.1	3.0
100°-110°	368.9	4.8
110°-120°	544.1	7.1
120°-130°	704.0	9.2
130°-140°	796.5	10.4
140°-150°	787.0	10.3
150°-160°	665.6	8.7
160°-170°	443.2	5.8
170°-180°	155.0	2.0
0°-30°	832.1	10.9
0°-40°	1332.3	17.4
0°-60°	2228.7	29.1
0°-90°	2970.3	38.8
90°-120°	1142.1	14.9
90°-150°	3429.6	44.8
90°-180°	4693.0	61.2
0°-180°	7663.7	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	1052	1042	1045	1052	291
25°	933	952	945	941	947	430
35°	795	812	805	792	792	498
45°	637	648	634	614	604	491
55°	470	482	462	436	429	421
65°	310	322	313	314	315	308
75°	167	181	221	255	265	179
85°	51	102	196	250	265	54
90°	17	88	188	244	263	14
95°	94	128	226	280	292	94
105°	271	286	354	402	410	289
115°	489	510	552	586	594	485
125°	731	757	792	820	827	655
135°	991	1013	1032	1059	1071	763
145°	1236	1251	1258	1267	1281	772
155°	1442	1451	1444	1446	1455	662
165°	1575	1581	1569	1564	1575	444
175°	1641	1647	1627	1620	1620	156
180°	1637	1637	1637	1637	1637	



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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	1094.8	1096.0	1097.2
5°	1080.1	1099.8	1089.4	1091.1	1098.7
7.5°	1070.2	1089.8	1080.9	1081.3	1090.0
10°	1061.5	1079.7	1071.0	1072.6	1080.1
12.5°	1050.4	1070.1	1059.7	1062.6	1070.2
15°	1033.6	1052.2	1041.6	1044.7	1052.2
17.5°	1008.8	1026.9	1017.4	1018.3	1025.9
20°	990.2	1007.1	1001.3	999.7	1007.3
22.5°	967.9	986.0	981.4	976.2	985.0
25°	932.9	951.5	945.3	940.8	946.9
27.5°	898.2	915.5	906.2	899.5	904.1
30°	870.9	888.0	879.0	871.0	875.6
32.5°	841.2	859.6	849.3	840.0	842.1
35°	795.0	812.2	804.9	791.9	791.9
37.5°	751.3	766.0	755.8	741.0	737.6
40°	719.1	734.9	722.3	705.0	700.5
42.5°	685.6	701.5	689.0	669.0	662.0
45°	636.9	648.1	634.0	613.5	604.4
47.5°	586.7	599.5	580.8	557.6	546.7
50°	553.2	565.9	547.6	520.4	508.3
52.5°	521.0	532.6	512.7	484.7	475.1
55°	469.6	482.4	462.2	435.9	429.0
57.5°	421.5	434.1	412.8	396.1	389.2
60°	390.5	401.9	382.0	369.6	364.1
62.5°	355.8	368.5	351.3	346.9	344.1
65°	309.9	321.6	313.4	314.3	315.2
67.5°	266.9	277.1	277.8	290.3	294.8
70°	237.1	247.3	257.3	276.4	282.2
72.5°	209.8	220.2	242.3	266.4	273.5
75°	167.4	181.0	220.9	254.7	265.3
77.5°	130.2	146.1	206.7	248.1	260.5
80°	105.4	129.2	200.6	245.8	259.5
82.5°	83.1	114.7	196.9	247.4	261.2
85°	51.1	102.5	196.5	249.9	265.2
87.5°	25.7	94.1	193.5	248.8	266.1
90°	16.8	88.5	187.9	244.5	263.0
92.5°	45.4	99.5	200.2	255.4	269.6
95°	93.7	127.9	225.5	280.0	291.7
97.5°	142.0	165.6	256.8	307.7	319.1
100°	176.8	195.0	281.0	330.7	340.5
102.5°	214.4	228.6	309.4	356.4	367.7
105°	271.0	285.7	353.6	401.7	409.8
107.5°	333.8	349.5	407.2	452.8	461.4
110°	375.6	395.2	446.3	487.8	497.9

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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	421.5	441.1	486.6	525.7	535.7
115°	488.8	509.9	552.3	585.5	594.0
117.5°	559.2	581.5	620.1	651.4	659.6
120°	610.8	631.6	668.9	698.8	705.6
122.5°	656.7	680.3	717.6	747.5	754.3
125°	730.9	756.8	792.3	820.5	827.3
127.5°	807.3	832.2	865.0	893.5	902.4
130°	861.7	883.7	912.2	942.2	952.4
132.5°	912.0	934.1	959.7	989.5	1001.1
135°	990.6	1012.7	1032.4	1058.7	1070.6
137.5°	1066.1	1087.5	1102.6	1123.4	1138.4
140°	1117.5	1136.2	1147.1	1166.5	1180.1
142.5°	1164.8	1183.5	1191.5	1208.2	1221.8
145°	1235.7	1251.0	1258.3	1267.3	1280.9
147.5°	1302.1	1317.0	1320.2	1328.0	1336.5
150°	1345.2	1358.8	1359.1	1362.8	1371.3
152.5°	1385.5	1397.7	1393.8	1396.2	1406.0
155°	1442.5	1451.0	1444.2	1446.2	1454.7
157.5°	1487.7	1496.2	1485.6	1488.9	1495.7
160°	1515.5	1524.0	1512.0	1513.9	1520.7
162.5°	1541.9	1547.7	1537.1	1534.8	1544.4
165°	1574.6	1581.4	1569.4	1564.4	1574.6
167.5°	1602.4	1609.2	1593.4	1588.0	1598.2
170°	1616.3	1623.1	1605.9	1599.2	1609.4
172.5°	1628.8	1635.6	1617.0	1608.8	1616.3
175°	1640.6	1647.4	1626.7	1619.8	1619.8
177.5°	1644.1	1648.2	1633.0	1626.2	1634.4
180°	1637.2	1637.2	1637.2	1637.2	1637.2

(END OF REPORT)