

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: P644457

Luminaire Tested: CRQ4DIP-SR4F0-75D75U940-FLLFLL-1DUDD-WW

Issue Date: 2/20/2023



Test Information

Test Method: LM-79-2019
Report Number: P644457
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-SR4F0-75D75U940-FLLFLL-1DUDD-WW
Description: NEO-RAY CIRQUE SUSPENDED LED LUMINAIRE
DOWNLIGHT - CURVED FROSTED LENS - 750 LUMENS PER FOOT
UPLIGHT - CURVED FROSTED LENS - 750 LUMENS PER FOOT
Light Source: 4000K CCT, 90 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

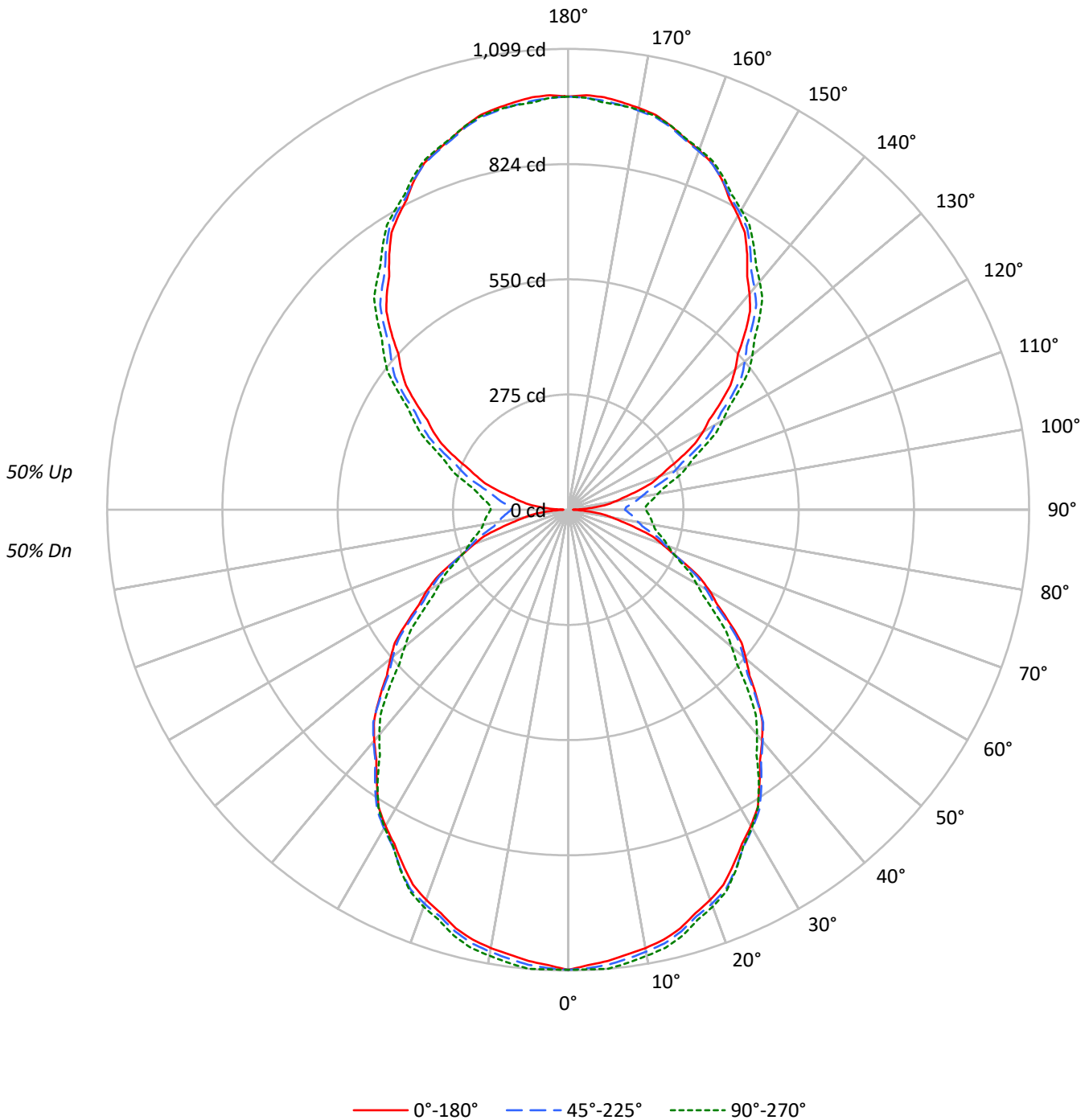
Lumens per Lamp: N/A
Luminaire Lumens: 5738.2 lumens
Efficiency: N/A
Efficacy: 134.7 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.19 / 1.3
Luminous Opening: Rectangular w/ Sides (W: 0.17' x L: 4' x H: 0.33')
CIE Type: General Diffuse

Input Watts (W): 42.6
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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CATALOG NUMBER: CRQ4DIP-SR4F0-75D75U940-FLLFLL-1DUDD-WW

Luminous Intensity Polar Plot





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COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	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	50	30	10	0														
RCR																																						
0	107	107	107	107	99	99	99	99	84	84	84	69	69	69	57	57	57	50																				
1	97	93	88	85	89	86	82	79	72	70	67	60	58	56	49	48	46	41																				
2	88	81	74	69	81	75	69	64	63	59	55	53	50	47	43	41	39	34																				
3	81	71	63	57	74	66	59	54	56	51	47	47	43	40	38	35	33	29																				
4	74	63	55	49	68	58	51	46	50	44	40	42	37	34	34	31	29	25																				
5	68	56	48	42	62	52	45	39	44	39	34	37	33	30	31	28	25	22																				
6	62	50	42	36	57	47	39	34	40	34	30	34	29	26	28	25	22	19																				
7	58	45	37	32	53	42	35	30	36	31	26	31	26	23	26	22	20	17																				
8	54	41	33	28	49	38	31	27	33	28	24	28	24	21	23	20	18	15																				
9	50	38	30	25	46	35	28	24	30	25	21	26	22	18	22	18	16	14																				
10	47	35	27	22	43	32	26	21	28	23	19	24	20	17	20	17	14	12																				

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	17715	17715	17715
5°	17379	15641	15155
10°	17151	13929	13091
15°	16900	12475	11451
20°	16513	11192	10016
25°	15998	9983	8729
30°	15491	8843	7576
35°	14806	7789	6503
40°	14166	6802	5513
45°	13424	5847	4600
50°	12640	4972	3774
55°	11813	4179	3096
60°	11019	3448	2553
65°	10044	2814	2137
70°	9108	2297	1840
75°	7966	1928	1654
80°	6655	1685	1549
85°	4848	1581	1522

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	1.8
10°-20°	294.0	5.1
20°-30°	434.2	7.6
30°-40°	499.6	8.7
40°-50°	484.8	8.4
50°-60°	408.5	7.1
60°-70°	305.7	5.3
70°-80°	211.6	3.7
80°-90°	150.6	2.6
90°-100°	151.5	2.6
100°-110°	226.9	4.0
110°-120°	329.2	5.7
120°-130°	424.4	7.4
130°-140°	479.4	8.4
140°-150°	473.6	8.3
150°-160°	400.6	7.0
160°-170°	266.7	4.6
170°-180°	93.3	1.6
0°-30°	831.8	14.5
0°-40°	1331.4	23.2
0°-60°	2224.7	38.8
0°-90°	2892.7	50.4
90°-120°	707.6	12.3
90°-150°	2084.9	36.3
90°-180°	2845.0	49.6
0°-180°	5738.2	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	1051	1041	1045	1052	291
25°	933	950	945	941	947	430
35°	795	810	803	792	792	498
45°	637	646	633	614	604	491
55°	470	480	461	434	424	421
65°	310	318	306	298	296	308
75°	167	176	201	219	224	179
85°	51	86	152	187	196	54
90°	12	65	135	173	185	11
95°	63	82	149	186	194	62
105°	169	174	216	247	253	180
115°	298	309	334	354	359	296
125°	442	457	477	494	498	396
135°	596	609	621	637	644	460
145°	744	753	757	763	771	464
155°	868	873	869	870	875	399
165°	948	952	944	941	948	267
175°	987	991	979	975	975	94
180°	985	985	985	985	985	



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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	1094.3	1096.0	1097.2
5°	1080.1	1099.8	1089.4	1091.1	1098.7
7.5°	1070.2	1089.2	1080.2	1081.3	1090.0
10°	1061.5	1079.7	1070.3	1072.6	1080.1
12.5°	1050.4	1069.0	1059.6	1062.6	1070.2
15°	1033.6	1050.8	1040.9	1044.7	1052.2
17.5°	1008.8	1026.2	1016.7	1018.3	1025.9
20°	990.2	1006.4	1000.6	999.7	1007.3
22.5°	967.9	985.3	980.8	976.2	985.0
25°	932.9	950.1	945.3	940.8	946.9
27.5°	898.2	913.1	905.3	899.5	904.1
30°	870.9	886.6	877.7	871.0	875.6
32.5°	841.2	857.7	847.9	840.0	842.1
35°	795.0	810.2	802.8	791.9	791.9
37.5°	751.3	763.3	755.1	741.0	737.6
40°	719.1	732.2	721.6	705.0	700.5
42.5°	685.6	698.8	687.8	669.0	662.0
45°	636.9	646.0	633.3	613.5	604.4
47.5°	586.7	597.0	579.8	557.6	546.7
50°	553.2	563.9	545.5	520.4	508.3
52.5°	521.0	530.0	511.2	484.1	474.0
55°	469.6	479.7	460.8	433.7	424.2
57.5°	421.5	431.4	410.6	389.8	381.5
60°	390.5	399.2	379.2	360.6	353.0
62.5°	355.8	365.3	347.4	335.0	329.1
65°	309.9	317.6	306.4	298.3	295.8
67.5°	266.9	273.0	268.3	269.3	269.6
70°	237.1	243.2	245.6	252.0	253.1
72.5°	209.8	215.6	226.6	237.7	240.0
75°	167.4	175.5	200.8	219.3	224.4
77.5°	130.2	138.8	180.6	205.2	212.1
80°	105.4	119.7	169.5	197.9	205.6
82.5°	83.1	103.1	161.3	193.4	201.1
85°	51.1	86.3	152.2	186.8	196.0
87.5°	24.7	73.3	143.1	179.6	190.1
90°	12.0	65.3	135.3	173.1	184.8
92.5°	31.2	69.1	138.7	175.7	185.3
95°	62.6	82.5	148.6	185.8	193.5
97.5°	92.9	103.3	163.9	198.2	205.7
100°	113.8	120.5	176.5	209.5	216.7
102.5°	136.0	140.3	191.6	223.0	230.5
105°	169.2	174.5	215.9	247.3	253.4
107.5°	206.3	212.2	246.8	275.9	281.7
110°	231.0	239.8	269.8	296.0	302.7



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	258.6	267.4	294.1	317.8	324.5
115°	298.5	308.8	333.6	353.6	358.7
117.5°	340.1	351.8	374.3	392.5	397.4
120°	370.7	381.9	403.2	420.5	424.6
122.5°	398.3	410.8	432.4	449.8	453.9
125°	442.3	456.7	477.4	493.7	497.8
127.5°	487.5	502.1	521.1	537.7	543.0
130°	519.7	533.0	549.6	567.0	573.1
132.5°	549.1	562.4	577.6	595.5	602.4
135°	596.1	609.4	621.2	637.1	644.2
137.5°	641.5	654.4	663.5	676.0	685.0
140°	672.5	683.7	690.3	701.9	710.1
142.5°	700.9	712.2	717.0	727.1	735.2
145°	743.6	752.8	757.2	762.6	770.8
147.5°	783.5	792.5	794.4	799.1	804.3
150°	809.5	817.7	817.9	820.1	825.2
152.5°	833.8	841.1	838.8	840.2	846.1
155°	868.1	873.2	869.1	870.3	875.4
157.5°	895.2	900.4	894.0	896.0	900.1
160°	912.0	917.1	909.9	911.0	915.1
162.5°	927.9	931.4	924.9	923.6	929.3
165°	947.5	951.6	944.4	941.4	947.5
167.5°	964.3	968.4	958.8	955.6	961.8
170°	972.6	976.7	966.4	962.3	968.5
172.5°	980.2	984.3	973.1	968.1	972.6
175°	987.3	991.4	978.9	974.7	974.7
177.5°	989.4	991.8	982.7	978.6	983.5
180°	985.2	985.2	985.2	985.2	985.2

(END OF REPORT)