

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: P644451

Luminaire Tested: CRQ4DIP-SR4F0-75D75U840-FLLFLL-1DUDD-WW

Issue Date: 2/20/2023



Test Information

Test Method: LM-79-2019
Report Number: P644451
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-SR4F0-75D75U840-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, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

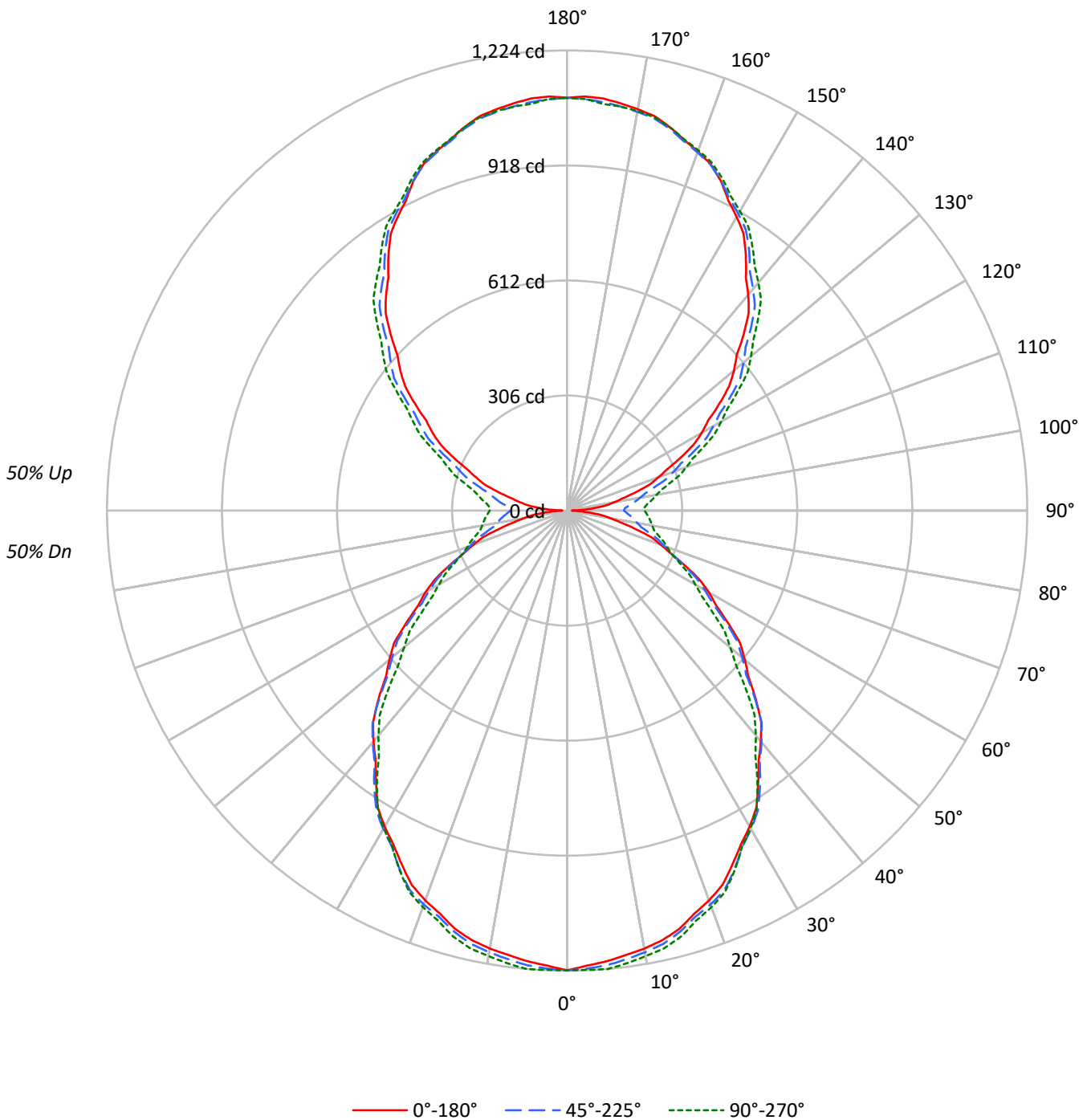
Lumens per Lamp: N/A
Luminaire Lumens: 6394.1 lumens
Efficiency: N/A
Efficacy: 150.1 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.19 / 1.3
Luminous Opening: Rectangular w/ Sides (W: 0.17' x L: 4' x H: 0.33')
CIE Type: General Diffuse

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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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	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°	19740	19740	19740
5°	19366	17430	16888
10°	19113	15522	14588
15°	18832	13901	12761
20°	18401	12471	11161
25°	17828	11124	9726
30°	17263	9853	8442
35°	16499	8679	7246
40°	15783	7579	6142
45°	14959	6516	5126
50°	14087	5541	4205
55°	13161	4657	3451
60°	12281	3842	2846
65°	11195	3137	2381
70°	10149	2560	2050
75°	8874	2148	1843
80°	7413	1878	1725
85°	5408	1761	1696

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 14959 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	115.4	1.8
10°-20°	327.6	5.1
20°-30°	483.8	7.6
30°-40°	556.7	8.7
40°-50°	540.3	8.4
50°-60°	455.3	7.1
60°-70°	340.7	5.3
70°-80°	235.8	3.7
80°-90°	167.8	2.6
90°-100°	168.8	2.6
100°-110°	252.9	4.0
110°-120°	366.8	5.7
120°-130°	472.9	7.4
130°-140°	534.2	8.4
140°-150°	527.7	8.3
150°-160°	446.4	7.0
160°-170°	297.2	4.6
170°-180°	103.9	1.6
0°-30°	926.9	14.5
0°-40°	1483.6	23.2
0°-60°	2479.1	38.8
0°-90°	3223.4	50.4
90°-120°	788.5	12.3
90°-150°	2323.3	36.3
90°-180°	3171.0	49.6
0°-180°	6394.1	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1223	1223	1223	1223	1223	
5°	1204	1226	1214	1216	1224	114
15°	1152	1171	1160	1164	1172	324
25°	1040	1059	1053	1048	1055	479
35°	886	903	894	882	882	555
45°	710	720	706	684	674	547
55°	523	534	514	483	473	469
65°	345	354	342	332	330	344
75°	186	196	224	244	250	199
85°	57	96	170	208	218	60
90°	13	73	151	193	206	12
95°	70	92	166	207	216	69
105°	189	194	240	276	282	201
115°	333	344	372	394	400	330
125°	493	509	532	550	555	442
135°	664	679	692	710	718	512
145°	829	839	844	850	859	518
155°	967	973	968	970	975	444
165°	1056	1060	1052	1049	1056	298
175°	1100	1105	1091	1086	1086	104
180°	1098	1098	1098	1098	1098	

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1222.6	1222.6	1222.6	1222.6	1222.6
2.5°	1211.5	1229.1	1219.4	1221.2	1222.6
5°	1203.6	1225.5	1214.0	1215.9	1224.3
7.5°	1192.5	1213.7	1203.7	1204.9	1214.7
10°	1182.9	1203.1	1192.7	1195.2	1203.6
12.5°	1170.4	1191.2	1180.7	1184.1	1192.5
15°	1151.8	1171.0	1159.9	1164.1	1172.5
17.5°	1124.2	1143.5	1132.9	1134.7	1143.2
20°	1103.4	1121.5	1115.0	1114.0	1122.4
22.5°	1078.6	1098.0	1092.9	1087.8	1097.6
25°	1039.6	1058.7	1053.4	1048.3	1055.1
27.5°	1000.9	1017.5	1008.8	1002.4	1007.4
30°	970.5	988.0	978.0	970.6	975.7
32.5°	937.3	955.7	944.8	936.0	938.4
35°	885.9	902.8	894.5	882.4	882.4
37.5°	837.2	850.5	841.4	825.7	822.0
40°	801.2	815.9	804.1	785.6	780.5
42.5°	763.9	778.6	766.4	745.5	737.7
45°	709.7	719.9	705.7	683.6	673.5
47.5°	653.8	665.2	646.1	621.4	609.2
50°	616.5	628.3	607.9	579.9	566.4
52.5°	580.6	590.6	569.7	539.4	528.2
55°	523.2	534.5	513.5	483.3	472.7
57.5°	469.7	480.7	457.5	434.4	425.1
60°	435.2	444.8	422.6	401.8	393.4
62.5°	396.5	407.0	387.1	373.3	366.7
65°	345.4	353.9	341.5	332.4	329.6
67.5°	297.4	304.2	298.9	300.1	300.4
70°	264.2	271.0	273.7	280.8	282.1
72.5°	233.8	240.2	252.6	264.9	267.4
75°	186.5	195.6	223.7	244.3	250.1
77.5°	145.1	154.7	201.2	228.6	236.3
80°	117.4	133.4	188.9	220.5	229.0
82.5°	92.6	114.9	179.7	215.5	224.1
85°	57.0	96.2	169.6	208.2	218.4
87.5°	27.5	81.6	159.4	200.2	211.9
90°	13.3	72.8	150.7	192.9	205.9
92.5°	34.7	77.0	154.6	195.7	206.5
95°	69.7	92.0	165.6	207.0	215.6
97.5°	103.5	115.1	182.6	220.8	229.2
100°	126.8	134.3	196.7	233.5	241.4
102.5°	151.5	156.3	213.5	248.5	256.9
105°	188.6	194.4	240.5	275.6	282.4
107.5°	229.9	236.5	275.0	307.5	313.9
110°	257.4	267.2	300.6	329.9	337.3



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	288.1	297.9	327.7	354.2	361.6
115°	332.6	344.1	371.7	394.0	399.7
117.5°	379.0	392.0	417.1	437.4	442.8
120°	413.0	425.6	449.2	468.6	473.2
122.5°	443.8	457.8	481.9	501.2	505.8
125°	492.9	508.9	532.0	550.2	554.7
127.5°	543.2	559.4	580.7	599.2	605.1
130°	579.2	594.0	612.4	631.8	638.6
132.5°	611.8	626.6	643.6	663.5	671.3
135°	664.3	679.1	692.2	709.9	717.9
137.5°	714.9	729.2	739.3	753.3	763.3
140°	749.4	761.9	769.2	782.2	791.3
142.5°	781.1	793.6	799.0	810.2	819.3
145°	828.6	838.9	843.7	849.8	858.9
147.5°	873.1	883.1	885.2	890.5	896.2
150°	902.0	911.1	911.3	913.8	919.5
152.5°	929.1	937.3	934.7	936.2	942.8
155°	967.3	973.0	968.4	969.7	975.4
157.5°	997.6	1003.3	996.2	998.4	1002.9
160°	1016.2	1021.9	1013.9	1015.2	1019.7
162.5°	1033.9	1037.8	1030.7	1029.2	1035.6
165°	1055.9	1060.4	1052.4	1049.0	1055.9
167.5°	1074.5	1079.1	1068.4	1064.9	1071.7
170°	1083.8	1088.4	1076.8	1072.3	1079.2
172.5°	1092.2	1096.8	1084.3	1078.8	1083.8
175°	1100.1	1104.7	1090.8	1086.2	1086.2
177.5°	1102.5	1105.2	1095.0	1090.5	1095.9
180°	1097.8	1097.8	1097.8	1097.8	1097.8

(END OF REPORT)