

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: P644393

Luminaire Tested: CRQ4DIP-SR4F0-75D100U930-FLLFLL-1DUDD-WW

Issue Date: 2/20/2023



Test Information

Test Method: LM-79-2019
Report Number: P644393
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-SR4F0-75D100U930-FLLFLL-1DUDD-WW
Description: NEO-RAY CIRQUE SUSPENDED LED LUMINAIRE
DOWNLIGHT - CURVED FROSTED LENS - 750 LUMENS PER FOOT
UPLIGHT - CURVED FROSTED LENS - 1000 LUMENS PER FOOT
Light Source: 3000K CCT, 90 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

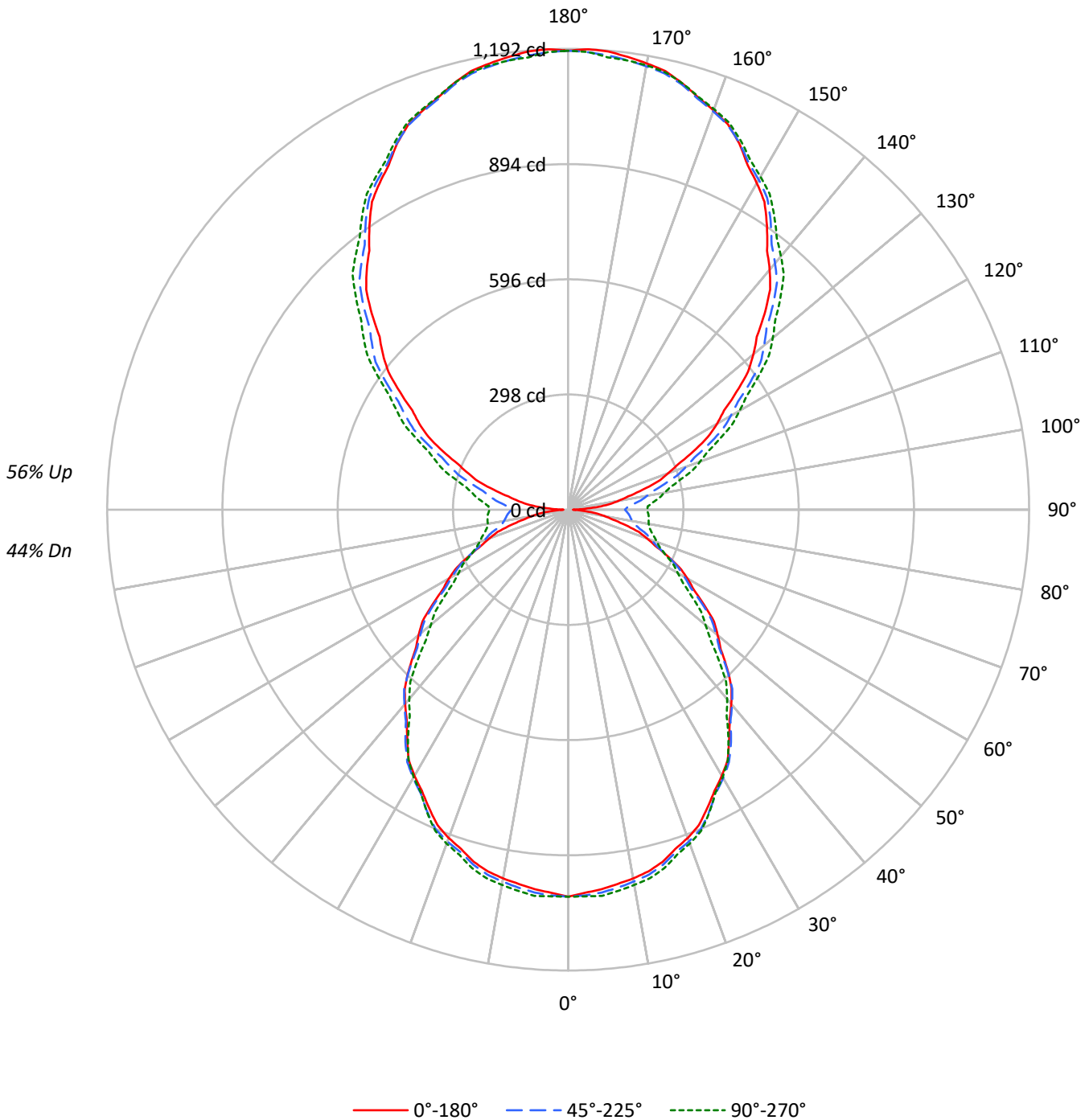
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 6086.9 lumens
Efficiency: N/A
Efficacy: 119.8 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): 50.8
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	50	30	10	0	
RCR																						
0	106	106	106	106	97	97	97	97	80	80	80	65	65	65	51	51	51	44				44
1	96	91	87	83	87	83	80	77	69	66	64	56	54	52	44	42	41	36				36
2	87	79	73	68	79	73	67	63	60	56	53	49	46	43	38	36	35	30				30
3	79	70	62	56	72	64	58	52	53	48	44	43	40	37	34	31	29	25				25
4	73	62	54	48	66	57	50	44	47	42	38	38	35	31	30	28	25	21				21
5	67	55	47	41	61	51	43	38	42	37	33	35	30	27	27	24	22	19				19
6	61	49	41	35	56	45	38	33	38	33	28	31	27	24	25	22	19	16				16
7	57	44	37	31	52	41	34	29	35	29	25	28	24	21	23	20	17	15				15
8	53	40	33	27	48	37	30	26	31	26	22	26	22	19	21	18	16	13				13
9	49	37	29	24	45	34	27	23	29	24	20	24	20	17	19	16	14	12				12
10	46	34	27	22	42	31	25	20	27	21	18	22	18	15	18	15	13	11				11

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	16162	16162	16162
5°	15857	14271	13828
10°	15649	12712	11945
15°	15420	11385	10448
20°	15067	10214	9138
25°	14597	9108	7963
30°	14134	8074	6913
35°	13508	7116	5933
40°	12923	6209	5030
45°	12248	5337	4197
50°	11534	4545	3443
55°	10777	3818	2841
60°	10054	3157	2365
65°	9166	2597	2012
70°	8309	2145	1772
75°	7266	1844	1642
80°	6068	1674	1593
85°	4431	1645	1626

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 12248 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	94.5	1.6
10°-20°	268.3	4.4
20°-30°	396.2	6.5
30°-40°	456.1	7.5
40°-50°	442.6	7.3
50°-60°	373.8	6.1
60°-70°	283.0	4.6
70°-80°	202.8	3.3
80°-90°	156.1	2.6
90°-100°	172.6	2.8
100°-110°	269.8	4.4
110°-120°	395.4	6.5
120°-130°	510.9	8.4
130°-140°	577.6	9.5
140°-150°	570.7	9.4
150°-160°	482.7	7.9
160°-170°	321.4	5.3
170°-180°	112.4	1.8
0°-30°	759.1	12.5
0°-40°	1215.1	20.0
0°-60°	2031.5	33.4
0°-90°	2673.6	43.9
90°-120°	837.8	13.8
90°-150°	2496.9	41.0
90°-180°	3413.0	56.1
0°-180°	6086.9	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1001	1001	1001	1001	1001	
5°	986	1004	994	996	1002	94
15°	943	959	950	953	960	265
25°	851	868	862	858	864	392
35°	725	740	733	722	722	454
45°	581	590	578	560	551	448
55°	428	439	421	397	389	384
65°	283	292	283	279	278	281
75°	153	163	192	216	223	163
85°	47	86	158	198	209	50
90°	13	70	147	190	203	11
95°	71	95	170	211	220	71
105°	199	208	258	294	300	213
115°	356	371	401	425	431	354
125°	531	549	575	595	600	476
135°	718	734	749	768	776	554
145°	896	907	912	919	929	560
155°	1046	1052	1047	1049	1055	480
165°	1142	1147	1138	1134	1142	322
175°	1190	1195	1180	1175	1175	113
180°	1187	1187	1187	1187	1187	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1001.0	1001.0	1001.0	1001.0	1001.0
2.5°	992.0	1006.4	998.7	999.9	1001.0
5°	985.5	1003.5	994.0	995.5	1002.5
7.5°	976.4	994.0	985.9	986.5	994.5
10°	968.5	985.1	976.8	978.6	985.5
12.5°	958.3	975.8	966.8	969.5	976.4
15°	943.1	959.4	950.0	953.1	960.0
17.5°	920.4	936.6	927.9	929.1	936.0
20°	903.5	918.5	913.2	912.1	919.0
22.5°	883.1	899.3	895.1	890.7	898.7
25°	851.2	867.5	862.5	858.4	863.9
27.5°	819.5	834.2	826.4	820.7	824.9
30°	794.6	809.5	801.4	794.7	798.9
32.5°	767.5	783.4	774.2	766.4	768.3
35°	725.3	740.1	733.4	722.5	722.5
37.5°	685.5	697.6	689.3	676.1	673.0
40°	656.0	669.3	658.7	643.2	639.1
42.5°	625.5	638.7	628.1	610.4	604.0
45°	581.1	590.3	578.1	559.7	551.4
47.5°	535.3	545.8	529.4	508.8	498.8
50°	504.8	515.4	498.6	474.8	463.8
52.5°	475.4	484.7	467.1	441.9	433.0
55°	428.4	438.9	421.0	396.7	389.2
57.5°	384.6	394.8	375.6	358.4	351.5
60°	356.3	365.4	347.2	333.0	327.0
62.5°	324.6	334.7	318.7	310.9	306.9
65°	282.8	291.6	282.7	279.2	278.5
67.5°	243.5	250.9	249.0	255.0	257.1
70°	216.3	223.7	229.3	240.7	243.8
72.5°	191.4	198.7	213.7	229.6	233.8
75°	152.7	162.6	192.1	215.7	222.8
77.5°	118.8	129.9	176.3	206.2	214.9
80°	96.1	113.4	168.4	201.7	211.4
82.5°	75.8	99.2	162.9	200.4	210.1
85°	46.7	85.9	158.4	198.4	209.4
87.5°	23.0	76.1	152.8	194.5	207.1
90°	13.1	69.8	146.7	189.5	203.2
92.5°	34.7	76.5	153.8	195.5	206.4
95°	70.9	95.3	169.6	211.2	220.0
97.5°	106.4	121.8	190.6	229.3	237.8
100°	131.7	142.9	207.3	244.8	252.5
102.5°	158.8	167.1	226.9	262.4	271.0
105°	199.4	208.4	257.9	293.9	300.4
107.5°	244.6	254.3	296.1	329.9	336.5
110°	274.7	287.5	324.2	354.9	362.5



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	308.0	320.8	353.4	381.9	389.4
115°	356.5	370.7	401.1	425.2	431.3
117.5°	407.2	422.6	450.2	472.6	478.5
120°	444.4	458.9	485.4	506.7	511.7
122.5°	477.7	494.0	520.6	542.0	547.0
125°	531.2	549.4	574.8	595.0	599.9
127.5°	586.2	604.1	627.5	647.9	654.3
130°	625.4	641.4	661.8	683.2	690.6
132.5°	661.5	677.5	696.0	717.5	725.9
135°	718.4	734.4	748.6	767.7	776.3
137.5°	773.1	788.6	799.5	814.6	825.5
140°	810.4	823.9	831.8	845.9	855.7
142.5°	844.6	858.2	864.0	876.1	886.0
145°	896.1	907.1	912.4	919.0	928.8
147.5°	944.2	955.0	957.3	963.0	969.2
150°	975.5	985.3	985.5	988.2	994.4
152.5°	1004.7	1013.6	1010.7	1012.4	1019.6
155°	1046.0	1052.2	1047.3	1048.7	1054.8
157.5°	1078.8	1085.0	1077.3	1079.7	1084.6
160°	1099.0	1105.1	1096.4	1097.8	1102.7
162.5°	1118.1	1122.3	1114.6	1113.0	1119.9
165°	1141.8	1146.7	1138.0	1134.4	1141.8
167.5°	1162.0	1166.9	1155.4	1151.6	1158.9
170°	1172.1	1177.0	1164.5	1159.6	1167.0
172.5°	1181.1	1186.1	1172.6	1166.6	1172.1
175°	1189.7	1194.6	1179.6	1174.6	1174.6
177.5°	1192.2	1195.2	1184.2	1179.2	1185.2
180°	1187.2	1187.2	1187.2	1187.2	1187.2

(END OF REPORT)