

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: P644397

Luminaire Tested: CRQ4DIP-SR4F0-75D100U940-FLLFLL-1DUDD-WW

Issue Date: 2/20/2023



Test Information

Test Method: LM-79-2019
Report Number: P644397
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-SR4F0-75D100U940-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: 4000K CCT, 90 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

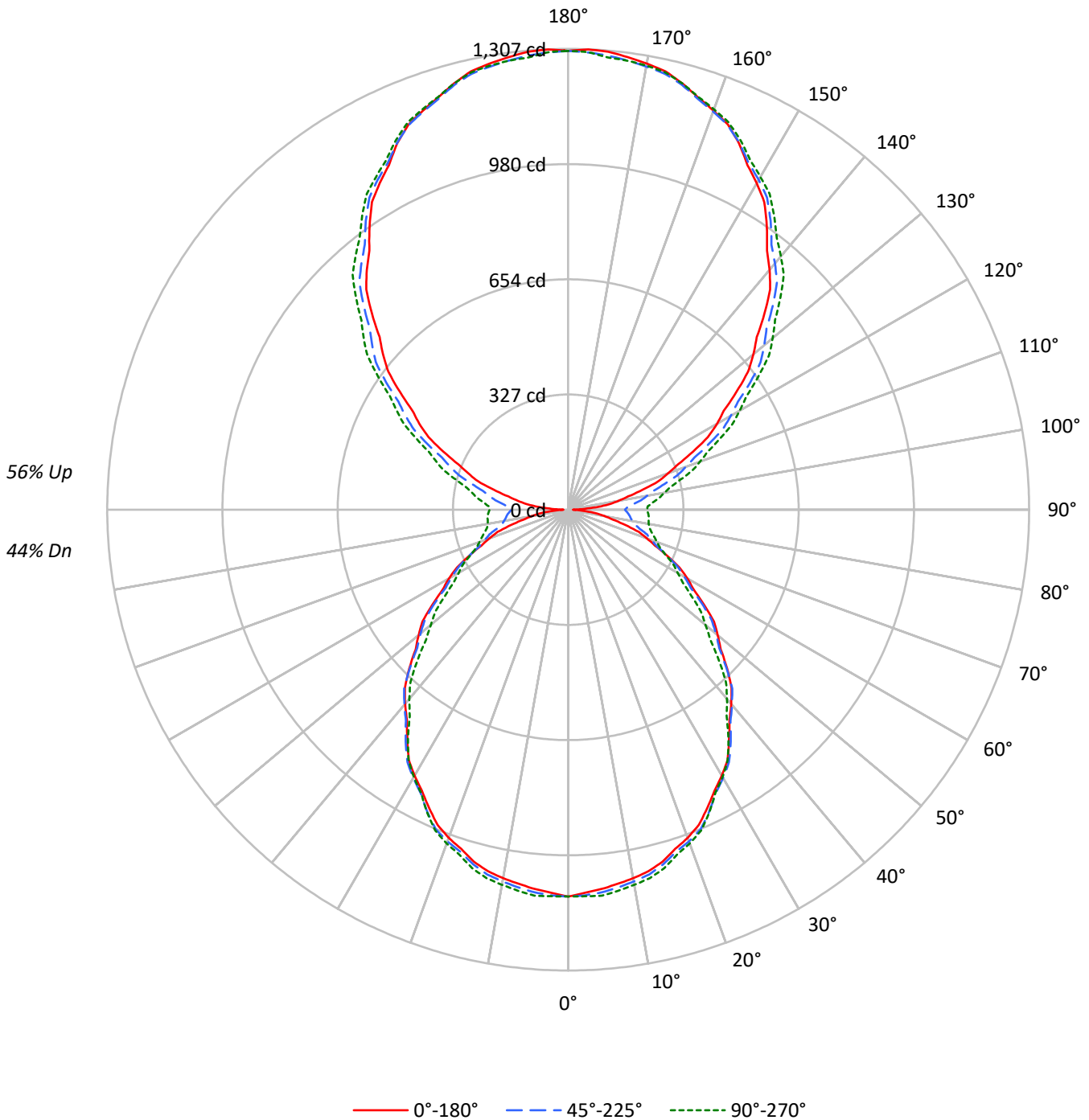
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 6671.5 lumens
Efficiency: N/A
Efficacy: 131.3 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 (A_{in}): 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°	17715	17715	17715
5°	17379	15641	15155
10°	17151	13935	13091
15°	16900	12478	11451
20°	16513	11195	10016
25°	15998	9983	8729
30°	15491	8849	7576
35°	14806	7799	6503
40°	14166	6805	5513
45°	13424	5851	4600
50°	12640	4982	3774
55°	11813	4185	3113
60°	11019	3460	2593
65°	10044	2846	2205
70°	9108	2350	1942
75°	7966	2021	1800
80°	6655	1835	1745
85°	4848	1803	1783

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	1.6
10°-20°	294.1	4.4
20°-30°	434.3	6.5
30°-40°	499.9	7.5
40°-50°	485.2	7.3
50°-60°	409.7	6.1
60°-70°	310.2	4.6
70°-80°	222.3	3.3
80°-90°	171.1	2.6
90°-100°	189.2	2.8
100°-110°	295.7	4.4
110°-120°	433.4	6.5
120°-130°	559.9	8.4
130°-140°	633.1	9.5
140°-150°	625.5	9.4
150°-160°	529.0	7.9
160°-170°	352.2	5.3
170°-180°	123.2	1.8
0°-30°	832.0	12.5
0°-40°	1331.8	20.0
0°-60°	2226.7	33.4
0°-90°	2930.3	43.9
90°-120°	918.2	13.8
90°-150°	2736.7	41.0
90°-180°	3741.0	56.1
0°-180°	6671.5	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	1041	1045	1052	291
25°	933	951	945	941	947	430
35°	795	811	804	792	792	498
45°	637	647	634	614	604	491
55°	470	481	462	435	426	421
65°	310	320	310	306	305	308
75°	167	178	210	236	244	179
85°	51	94	174	217	230	54
90°	14	76	161	208	223	13
95°	78	104	186	232	241	78
105°	218	228	283	322	329	233
115°	391	406	440	466	473	388
125°	582	602	630	652	658	522
135°	787	805	820	841	851	607
145°	982	994	1000	1007	1018	613
155°	1146	1153	1148	1149	1156	526
165°	1252	1257	1247	1243	1252	353
175°	1304	1309	1293	1287	1287	124
180°	1301	1301	1301	1301	1301	



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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	1094.6	1096.0	1097.2
5°	1080.1	1099.8	1089.4	1091.1	1098.7
7.5°	1070.2	1089.5	1080.6	1081.3	1090.0
10°	1061.5	1079.7	1070.7	1072.6	1080.1
12.5°	1050.4	1069.5	1059.6	1062.6	1070.2
15°	1033.6	1051.5	1041.2	1044.7	1052.2
17.5°	1008.8	1026.6	1017.0	1018.3	1025.9
20°	990.2	1006.8	1000.9	999.7	1007.3
22.5°	967.9	985.6	981.1	976.2	985.0
25°	932.9	950.8	945.3	940.8	946.9
27.5°	898.2	914.3	905.7	899.5	904.1
30°	870.9	887.3	878.3	871.0	875.6
32.5°	841.2	858.6	848.6	840.0	842.1
35°	795.0	811.2	803.8	791.9	791.9
37.5°	751.3	764.6	755.5	741.0	737.6
40°	719.1	733.5	722.0	705.0	700.5
42.5°	685.6	700.1	688.4	669.0	662.0
45°	636.9	647.0	633.7	613.5	604.4
47.5°	586.7	598.2	580.3	557.6	546.7
50°	553.2	564.9	546.5	520.4	508.3
52.5°	521.0	531.3	512.0	484.4	474.6
55°	469.6	481.0	461.5	434.8	426.5
57.5°	421.5	432.7	411.7	392.9	385.2
60°	390.5	400.5	380.5	364.9	358.4
62.5°	355.8	366.8	349.3	340.8	336.4
65°	309.9	319.6	309.8	306.0	305.2
67.5°	266.9	275.0	272.9	279.5	281.8
70°	237.1	245.2	251.3	263.8	267.2
72.5°	209.8	217.8	234.2	251.6	256.2
75°	167.4	178.2	210.5	236.4	244.2
77.5°	130.2	142.3	193.2	226.0	235.5
80°	105.4	124.3	184.6	221.1	231.7
82.5°	83.1	108.7	178.5	219.6	230.2
85°	51.1	94.2	173.6	217.4	229.6
87.5°	25.2	83.4	167.5	213.2	227.0
90°	14.3	76.5	160.8	207.7	222.7
92.5°	38.1	83.8	168.5	214.3	226.2
95°	77.7	104.5	185.9	231.5	241.1
97.5°	116.7	133.5	208.9	251.3	260.7
100°	144.3	156.6	227.2	268.3	276.7
102.5°	174.0	183.1	248.7	287.6	297.0
105°	218.5	228.4	282.6	322.1	329.2
107.5°	268.1	278.7	324.5	361.6	368.8
110°	301.1	315.1	355.3	389.0	397.3



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	337.6	351.6	387.4	418.6	426.8
115°	390.7	406.3	439.6	466.0	472.7
117.5°	446.3	463.1	493.4	518.0	524.5
120°	487.1	502.9	532.0	555.4	560.8
122.5°	523.5	541.4	570.6	594.1	599.5
125°	582.2	602.1	630.0	652.1	657.5
127.5°	642.5	662.1	687.8	710.2	717.2
130°	685.5	703.0	725.4	748.9	757.0
132.5°	725.0	742.5	762.8	786.4	795.6
135°	787.3	804.9	820.5	841.4	850.9
137.5°	847.3	864.3	876.3	892.9	904.8
140°	888.2	903.0	911.7	927.1	937.9
142.5°	925.8	940.6	947.0	960.3	971.1
145°	982.1	994.3	1000.1	1007.2	1018.0
147.5°	1034.9	1046.8	1049.2	1055.5	1062.2
150°	1069.1	1079.9	1080.2	1083.1	1089.9
152.5°	1101.2	1110.9	1107.8	1109.6	1117.5
155°	1146.5	1153.2	1147.9	1149.4	1156.2
157.5°	1182.4	1189.2	1180.7	1183.4	1188.8
160°	1204.5	1211.3	1201.7	1203.2	1208.6
162.5°	1225.5	1230.1	1221.6	1219.9	1227.4
165°	1251.5	1256.9	1247.3	1243.4	1251.5
167.5°	1273.6	1279.0	1266.4	1262.1	1270.3
170°	1284.6	1290.0	1276.3	1271.0	1279.1
172.5°	1294.6	1300.0	1285.2	1278.7	1284.6
175°	1304.0	1309.4	1292.9	1287.4	1287.4
177.5°	1306.7	1310.0	1297.9	1292.5	1299.0
180°	1301.2	1301.2	1301.2	1301.2	1301.2

(END OF REPORT)