

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: P644438

Luminaire Tested: CRQ4DIP-SR4F0-75D50U835-FLLOOB-1DUDD-WW

Issue Date: 2/20/2023



Test Information

Test Method: LM-79-2019
Report Number: P644438
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2203-563-26, G2-2206-689-14)
Test Lab: INNOVATION CENTER
Issue Date: 2/20/2023
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: CRQ4DIP-SR4F0-75D50U835-FLLOOB-1DUDD-WW
Description: NEO-RAY CIRQUE SUSPENDED LED LUMINAIRE
DOWNLIGHT - CURVED FROSTED LENS - 750 LUMENS PER FOOT
UPLIGHT - BATWING OPTIC - 500 LUMENS PER FOOT
Light Source: 3500K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

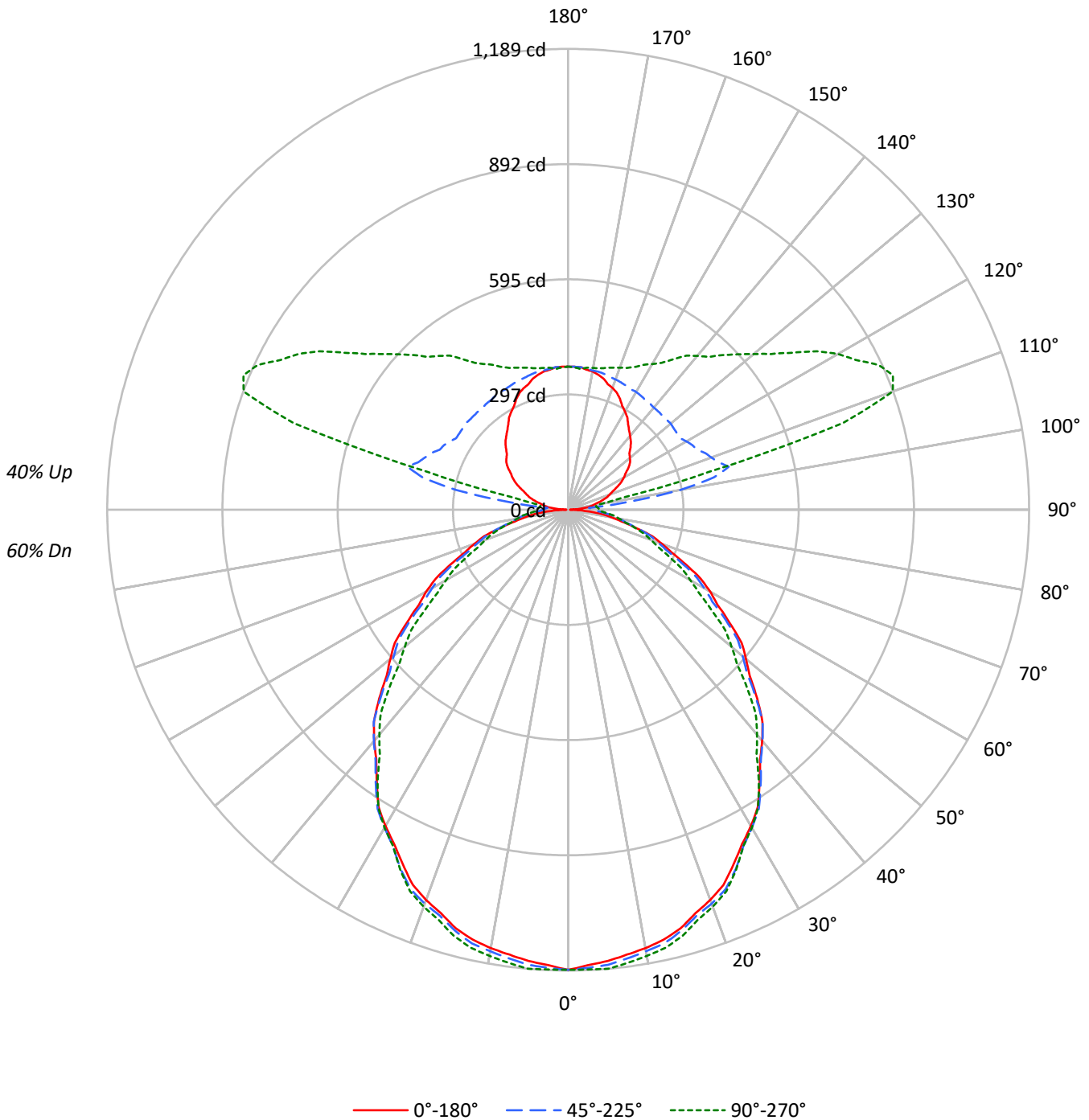
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 5044.7 lumens
Efficiency: N/A
Efficacy: 138.6 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): 36.4
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										
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	109	109	109	109	102	102	102	102	89	89	89	76	76	76	65	65	65	60																				
1	100	95	91	88	93	89	86	82	77	75	72	67	65	63	57	56	54	50																				
2	91	83	77	72	85	78	72	68	68	64	60	59	56	53	50	48	46	42																				
3	83	73	66	60	77	69	62	57	60	55	51	52	48	45	45	42	39	35																				
4	76	65	57	51	71	61	54	48	53	48	43	47	42	39	40	37	34	31																				
5	70	58	50	44	65	55	47	42	48	42	38	42	37	34	36	33	30	27																				
6	64	52	44	38	60	49	42	36	43	37	33	38	33	29	33	29	26	23																				
7	60	47	39	33	56	45	37	32	39	33	29	35	30	26	30	26	23	21																				
8	55	43	35	30	52	41	33	28	36	30	26	32	27	23	28	24	21	19																				
9	52	39	32	27	48	37	30	25	33	27	23	29	24	21	26	22	19	17																				
10	48	36	29	24	45	34	27	23	31	25	21	27	22	19	24	20	17	15																				

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	19168	19168	19168
5°	18806	16924	16400
10°	18559	15058	14167
15°	18288	13485	12392
20°	17869	12098	10838
25°	17311	10802	9444
30°	16763	9545	8197
35°	16020	8395	7036
40°	15328	7349	5965
45°	14526	6317	4978
50°	13678	5350	4083
55°	12782	4501	3293
60°	11925	3690	2632
65°	10871	2942	2083
70°	9857	2305	1646
75°	8617	1771	1298
80°	7198	1317	1010
85°	5247	958	768

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 14526 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	112.1	2.2
10°-20°	318.0	6.3
20°-30°	469.4	9.3
30°-40°	539.7	10.7
40°-50°	523.5	10.4
50°-60°	438.3	8.7
60°-70°	315.8	6.3
70°-80°	192.9	3.8
80°-90°	94.6	1.9
90°-100°	82.5	1.6
100°-110°	336.9	6.7
110°-120°	443.8	8.8
120°-130°	359.3	7.1
130°-140°	287.7	5.7
140°-150°	226.6	4.5
150°-160°	165.7	3.3
160°-170°	102.9	2.0
170°-180°	35.1	0.7
0°-30°	899.4	17.8
0°-40°	1439.1	28.5
0°-60°	2400.9	47.6
0°-90°	3004.1	59.5
90°-120°	863.2	17.1
90°-150°	1736.9	34.4
90°-180°	2041.0	40.5
0°-180°	5044.7	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1187	1187	1187	1187	1187	
5°	1169	1190	1179	1181	1189	111
15°	1118	1135	1125	1130	1139	315
25°	1010	1026	1023	1018	1024	465
35°	860	873	865	857	857	539
45°	689	696	684	664	654	531
55°	508	515	496	466	451	456
65°	335	337	320	297	288	334
75°	181	181	184	179	176	194
85°	55	67	92	99	99	58
90°	5	35	65	77	79	7
95°	35	50	54	68	74	35
105°	89	118	429	552	374	94
115°	139	160	366	756	883	138
125°	190	212	343	597	706	169
135°	228	252	344	492	564	176
145°	269	292	346	428	474	169
155°	316	327	353	388	406	145
165°	351	355	362	372	378	98
175°	369	372	369	367	365	35
180°	369	369	369	369	369	

TEST NUMBER: P644438

CATALOG NUMBER: CRQ4DIP-SR4F0-75D50U835-FLLOOB-1DUDD-WW

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1187.2	<i>1187.2</i>	1187.2	1187.2	1187.2
2.5°	<i>1176.5</i>	<i>1193.5</i>	<i>1183.2</i>	<i>1185.9</i>	<i>1187.2</i>
5°	1168.8	<i>1190.1</i>	1178.8	1180.7	1188.9
7.5°	1158.0	<i>1177.7</i>	1167.8	1170.0	1179.5
10°	1148.6	<i>1168.3</i>	1157.0	1160.6	1168.8
12.5°	1136.6	<i>1154.9</i>	1146.3	1149.8	1158.0
15°	1118.5	<i>1134.8</i>	1125.2	1130.4	1138.6
17.5°	1091.6	<i>1109.3</i>	1099.0	1101.9	1110.1
20°	1071.5	<i>1087.9</i>	1081.6	1081.7	1089.9
22.5°	1047.4	<i>1065.1</i>	1060.1	1056.3	1065.8
25°	1009.5	<i>1025.9</i>	1022.9	1018.0	1024.5
27.5°	971.9	<i>984.0</i>	978.3	973.3	978.3
30°	942.4	<i>957.1</i>	947.4	942.5	947.4
32.5°	910.2	<i>924.9</i>	915.2	908.9	911.2
35°	860.2	<i>873.3</i>	865.2	856.9	856.9
37.5°	812.9	<i>821.5</i>	815.9	801.8	798.2
40°	778.1	<i>787.9</i>	779.7	762.8	757.9
42.5°	741.8	<i>751.7</i>	742.2	723.9	716.3
45°	689.2	<i>695.7</i>	684.2	663.8	654.0
47.5°	634.9	<i>641.7</i>	625.8	603.4	591.6
50°	598.6	<i>606.8</i>	586.9	563.1	550.0
52.5°	563.8	<i>569.3</i>	550.7	522.9	511.1
55°	508.1	<i>514.6</i>	496.3	465.8	451.1
57.5°	456.1	<i>462.3</i>	440.7	411.6	400.1
60°	422.6	<i>427.5</i>	405.8	375.4	363.9
62.5°	385.0	<i>389.9</i>	369.6	343.2	331.7
65°	335.4	<i>337.0</i>	320.3	296.6	288.4
67.5°	288.8	<i>288.8</i>	274.7	257.1	250.5
70°	256.6	<i>256.6</i>	246.5	232.9	226.4
72.5°	227.0	<i>225.7</i>	219.7	210.2	204.9
75°	181.1	<i>181.1</i>	184.5	179.3	176.1
77.5°	140.9	<i>138.2</i>	152.6	151.9	150.2
80°	114.0	<i>114.0</i>	132.5	135.8	134.1
82.5°	89.9	<i>92.5</i>	116.4	121.0	119.4
85°	55.3	<i>66.8</i>	92.2	98.9	98.9
87.5°	25.2	<i>45.6</i>	73.4	82.6	82.9
90°	5.0	<i>35.2</i>	65.0	77.4	79.1
92.5°	16.0	<i>33.0</i>	59.9	74.2	79.0
95°	35.3	<i>49.6</i>	53.8	68.0	74.2
97.5°	53.1	<i>76.1</i>	162.0	75.5	72.1
100°	64.2	<i>91.4</i>	294.1	109.2	85.3
102.5°	74.0	<i>103.0</i>	385.3	236.0	141.7
105°	88.7	<i>117.5</i>	428.7	552.1	373.7
107.5°	103.5	<i>123.0</i>	405.9	790.8	743.0
110°	113.3	<i>132.3</i>	393.4	827.8	890.7



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	124.4	143.5	382.3	801.9	906.6
115°	139.4	160.1	365.6	756.2	883.4
117.5°	154.6	176.8	361.1	705.6	836.3
120°	166.3	188.0	352.3	667.2	803.4
122.5°	175.6	197.8	343.0	635.4	760.7
125°	190.1	211.8	343.0	596.9	705.9
127.5°	201.6	225.7	343.5	552.3	659.9
130°	207.7	234.9	345.3	522.4	624.6
132.5°	214.3	241.5	344.0	509.0	593.0
135°	227.6	252.5	343.7	491.6	564.2
137.5°	239.2	266.0	343.7	472.3	534.5
140°	248.5	273.4	343.7	461.0	517.8
142.5°	257.7	280.9	345.5	448.0	501.1
145°	269.4	292.1	346.0	428.3	473.7
147.5°	283.3	303.3	348.8	414.1	449.1
150°	292.6	310.7	350.6	404.7	434.2
152.5°	301.9	318.2	350.6	397.1	421.2
155°	315.8	327.1	352.9	388.2	406.3
157.5°	326.9	337.8	355.7	382.5	395.7
160°	334.4	343.4	357.6	378.7	390.1
162.5°	339.9	349.0	359.4	376.8	384.5
165°	350.6	355.2	362.2	371.7	378.5
167.5°	356.7	360.7	364.6	369.3	373.4
170°	362.2	364.5	364.6	369.2	371.5
172.5°	364.1	368.2	366.4	367.4	369.7
175°	369.2	371.5	369.2	366.8	364.6
177.5°	369.2	371.0	369.2	369.2	367.3
180°	369.2	369.2	369.2	369.2	369.2

(END OF REPORT)