

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: P644450

Luminaire Tested: CRQ4DIP-SR4F0-75D75U835-FLLOOB-1DUDD-WW

Issue Date: 2/20/2023



Test Information

Test Method: LM-79-2019
Report Number: P644450
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-SR4F0-75D75U835-FLLOOB-1DUDD-WW
Description: NEO-RAY CIRQUE SUSPENDED LED LUMINAIRE
DOWNLIGHT - CURVED FROSTED LENS - 750 LUMENS PER FOOT
UPLIGHT - BATWING OPTIC - 750 LUMENS PER FOOT
Light Source: 3500K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

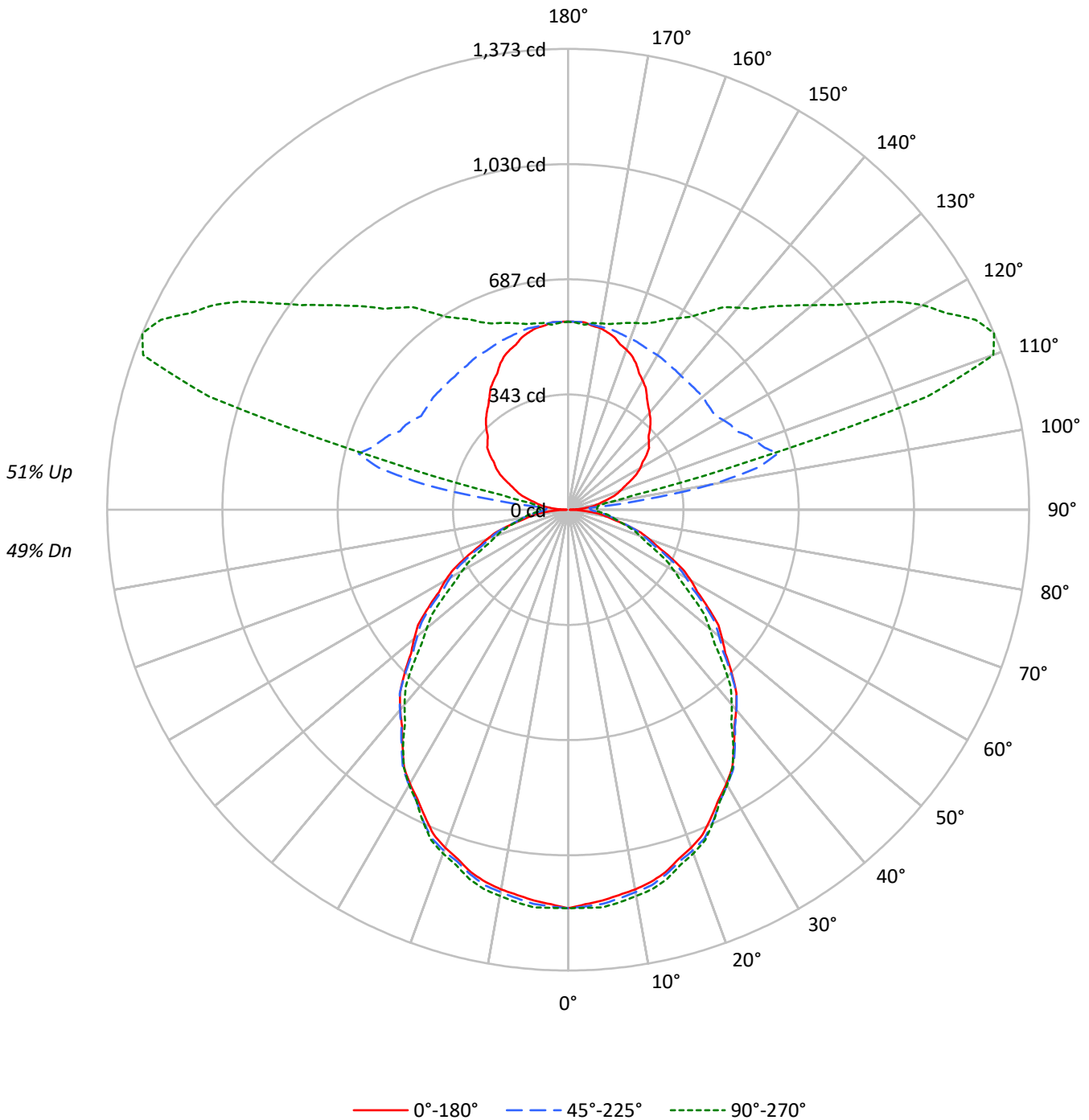
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 6071.6 lumens
Efficiency: N/A
Efficacy: 142.5 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	50	30	10	0	
RCR																						
0	107	107	107	107	99	99	99	99	83	83	83	69	69	69	56	56	56	49				
1	97	93	89	86	90	86	83	79	73	70	68	60	58	57	49	48	47	41				
2	89	81	75	70	82	75	70	65	64	60	56	53	50	48	43	41	39	35				
3	81	72	64	58	74	66	60	55	56	51	47	47	43	40	38	36	34	29				
4	74	63	55	49	68	59	52	46	50	45	40	42	38	35	34	31	29	25				
5	68	57	48	42	63	52	45	40	45	39	35	38	33	30	31	28	25	22				
6	63	51	43	37	58	47	40	35	40	35	31	34	30	26	28	25	22	19				
7	58	46	38	32	53	43	36	31	37	31	27	31	27	23	26	22	20	17				
8	54	42	34	29	50	39	32	27	33	28	24	28	24	21	24	20	18	16				
9	50	38	31	26	46	36	29	24	31	25	21	26	22	19	22	19	16	14				
10	47	35	28	23	43	33	26	22	28	23	19	24	20	17	20	17	15	13				

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	1.8
10°-20°	318.0	5.2
20°-30°	469.4	7.7
30°-40°	539.7	8.9
40°-50°	523.5	8.6
50°-60°	438.3	7.2
60°-70°	315.8	5.2
70°-80°	192.9	3.2
80°-90°	95.0	1.6
90°-100°	106.0	1.7
100°-110°	504.3	8.3
110°-120°	671.1	11.1
120°-130°	544.3	9.0
130°-140°	436.5	7.2
140°-150°	343.9	5.7
150°-160°	251.5	4.1
160°-170°	156.2	2.6
170°-180°	53.3	0.9
0°-30°	899.4	14.8
0°-40°	1439.1	23.7
0°-60°	2400.9	39.5
0°-90°	3004.5	49.5
90°-120°	1281.4	21.1
90°-150°	2606.1	42.9
90°-180°	3067.0	50.5
0°-180°	6071.6	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	36	67	81	83	7
95°	45	67	63	79	87	46
105°	126	175	646	830	558	133
115°	206	240	553	1146	1339	204
125°	285	320	520	906	1071	253
135°	345	383	522	746	856	266
145°	409	443	525	650	719	257
155°	479	496	536	589	617	220
165°	532	539	550	564	574	149
175°	560	564	560	557	553	53
180°	560	560	560	560	560	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1187.2	1187.2	1187.2	1187.2	1187.2
2.5°	1176.5	1193.5	1183.2	1185.9	1187.2
5°	1168.8	1190.1	1178.8	1180.7	1188.9
7.5°	1158.0	1177.7	1167.8	1170.0	1179.5
10°	1148.6	1168.3	1157.0	1160.6	1168.8
12.5°	1136.6	1154.9	1146.3	1149.8	1158.0
15°	1118.5	1134.8	1125.2	1130.4	1138.6
17.5°	1091.6	1109.3	1099.0	1101.9	1110.1
20°	1071.5	1087.9	1081.6	1081.7	1089.9
22.5°	1047.4	1065.1	1060.1	1056.3	1065.8
25°	1009.5	1025.9	1022.9	1018.0	1024.5
27.5°	971.9	984.0	978.3	973.3	978.3
30°	942.4	957.1	947.4	942.5	947.4
32.5°	910.2	924.9	915.2	908.9	911.2
35°	860.2	873.3	865.2	856.9	856.9
37.5°	812.9	821.5	815.9	801.8	798.2
40°	778.1	787.9	779.7	762.8	757.9
42.5°	741.8	751.7	742.2	723.9	716.3
45°	689.2	695.7	684.2	663.8	654.0
47.5°	634.9	641.7	625.8	603.4	591.6
50°	598.6	606.8	586.9	563.1	550.0
52.5°	563.8	569.3	550.7	522.9	511.1
55°	508.1	514.6	496.3	465.8	451.1
57.5°	456.1	462.3	440.7	411.6	400.1
60°	422.6	427.5	405.8	375.4	363.9
62.5°	385.0	389.9	369.6	343.2	331.7
65°	335.4	337.0	320.3	296.6	288.4
67.5°	288.8	288.8	274.7	257.1	250.5
70°	256.6	256.6	246.5	232.9	226.4
72.5°	227.0	225.7	219.7	210.2	204.9
75°	181.1	181.1	184.5	179.3	176.1
77.5°	140.9	138.2	152.6	151.9	150.2
80°	114.0	114.0	132.5	135.8	134.1
82.5°	89.9	92.5	116.4	121.0	119.4
85°	55.3	66.8	92.2	98.9	98.9
87.5°	25.2	45.8	73.8	83.3	83.6
90°	5.0	36.3	67.4	81.0	82.7
92.5°	18.9	37.1	65.1	81.7	87.4
95°	45.0	67.4	63.4	78.9	87.4
97.5°	70.2	110.3	232.7	96.4	90.1
100°	87.1	134.2	435.9	151.0	112.9
102.5°	102.6	152.5	577.1	346.2	202.0
105°	126.0	174.7	646.2	829.9	557.6
107.5°	149.4	184.0	613.6	1195.2	1121.8
110°	164.9	198.1	595.3	1252.7	1347.4



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	181.9	215.0	578.4	1214.9	1372.9
115°	205.5	240.3	553.1	1145.9	1338.9
117.5°	229.6	265.7	546.4	1070.0	1268.5
120°	248.0	282.6	533.8	1012.5	1219.2
122.5°	262.1	298.2	519.7	964.2	1154.4
125°	285.1	319.7	519.7	905.8	1071.2
127.5°	303.5	340.8	520.4	838.1	1001.5
130°	313.4	354.8	523.2	792.8	947.9
132.5°	324.9	366.2	521.9	772.5	900.0
135°	345.3	383.2	521.5	746.0	856.3
137.5°	362.9	403.6	521.5	716.8	811.2
140°	377.0	414.9	521.5	699.7	785.8
142.5°	391.1	426.3	524.3	679.8	760.4
145°	408.8	443.2	525.0	649.9	718.8
147.5°	429.9	460.2	529.3	628.4	681.5
150°	444.0	471.6	532.1	614.2	658.9
152.5°	458.1	482.9	532.1	602.7	639.2
155°	479.2	496.5	535.6	589.1	616.7
157.5°	496.1	512.7	539.8	580.5	600.4
160°	507.4	521.2	542.7	574.8	592.0
162.5°	515.9	529.7	545.5	571.8	583.5
165°	532.1	539.0	549.7	564.0	574.4
167.5°	541.2	547.5	553.2	560.4	566.6
170°	549.7	553.2	553.2	560.4	563.8
172.5°	552.5	558.7	556.0	557.5	561.0
175°	560.3	563.7	560.3	556.7	553.2
177.5°	560.3	563.0	560.3	560.2	557.5
180°	560.3	560.3	560.3	560.3	560.3

(END OF REPORT)