

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: P644449

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

Issue Date: 2/20/2023

Test Information

Test Method: LM-79-2019
Report Number: P644449
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-SR4F0-75D75U835-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: 3500K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

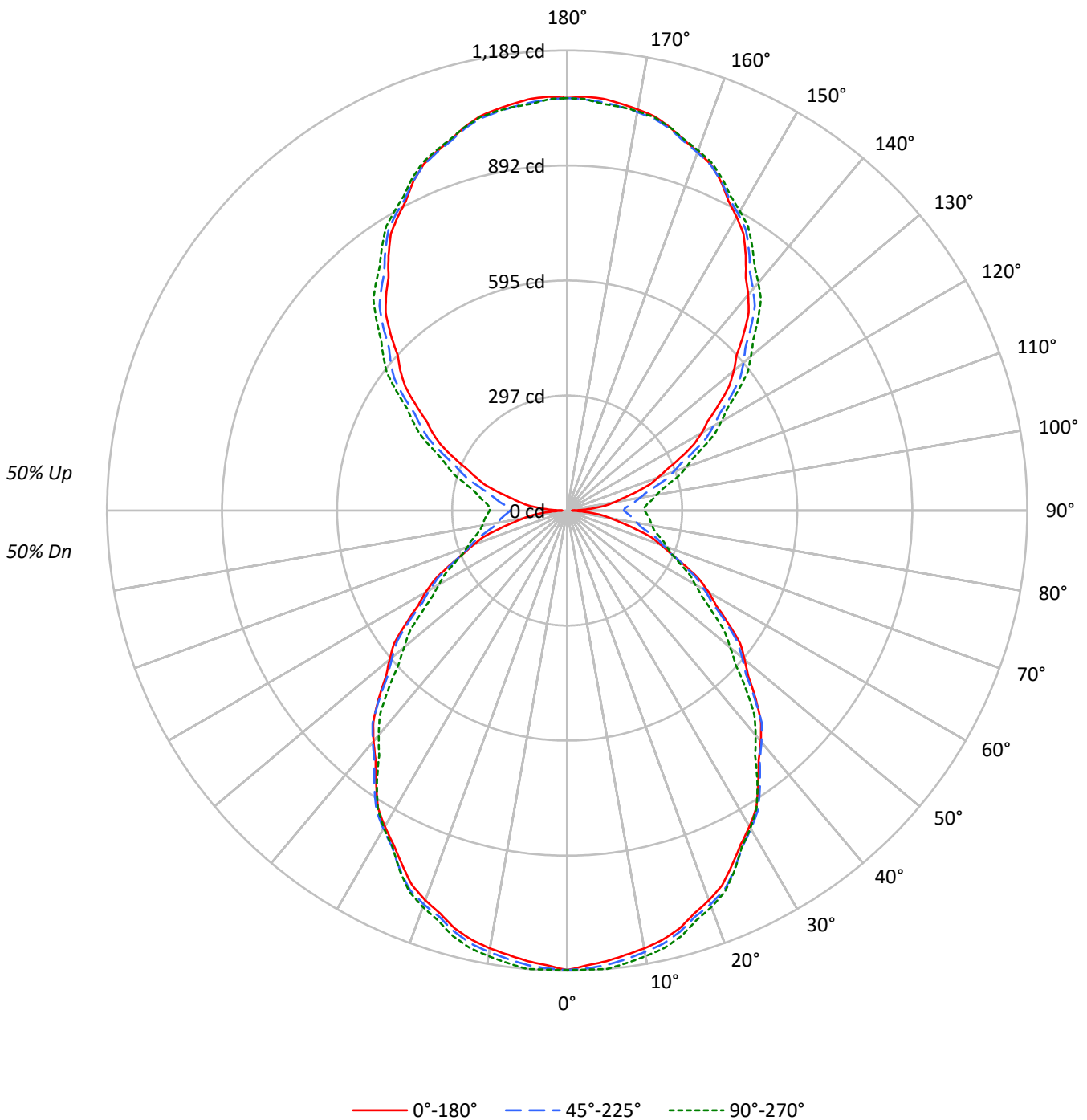
Lumens per Lamp: N/A
Luminaire Lumens: 6209.0 lumens
Efficiency: N/A
Efficacy: 145.8 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.19 / 1.3
Luminous Opening: Rectangular w/ Sides (W: 0.17' x L: 4' x H: 0.33')
CIE Type: General Diffuse

Input Watts (W): 42.6
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										
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	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°	19168	19168	19168
5°	18806	16924	16400
10°	18559	15073	14167
15°	18288	13498	12392
20°	17869	12110	10838
25°	17311	10802	9444
30°	16763	9568	8197
35°	16020	8428	7036
40°	15328	7361	5965
45°	14526	6327	4978
50°	13678	5381	4083
55°	12782	4522	3351
60°	11925	3731	2763
65°	10871	3046	2312
70°	9857	2485	1991
75°	8617	2086	1790
80°	7198	1823	1675
85°	5247	1710	1647

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°	318.1	5.1
20°-30°	469.8	7.6
30°-40°	540.6	8.7
40°-50°	524.6	8.4
50°-60°	442.1	7.1
60°-70°	330.8	5.3
70°-80°	229.0	3.7
80°-90°	163.0	2.6
90°-100°	164.0	2.6
100°-110°	245.5	4.0
110°-120°	356.2	5.7
120°-130°	459.2	7.4
130°-140°	518.7	8.4
140°-150°	512.4	8.3
150°-160°	433.4	7.0
160°-170°	288.6	4.6
170°-180°	100.9	1.6
0°-30°	900.0	14.5
0°-40°	1440.6	23.2
0°-60°	2407.3	38.8
0°-90°	3130.1	50.4
90°-120°	765.7	12.3
90°-150°	2256.0	36.3
90°-180°	3079.0	49.6
0°-180°	6209.0	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	1137	1126	1130	1139	315
25°	1010	1028	1023	1018	1024	465
35°	860	877	869	857	857	539
45°	689	699	685	664	654	531
55°	508	519	499	469	459	456
65°	335	344	332	323	320	334
75°	181	190	217	237	243	194
85°	55	93	165	202	212	59
90°	13	71	146	187	200	12
95°	68	89	161	201	209	67
105°	183	189	234	268	274	195
115°	323	334	361	383	388	321
125°	479	494	517	534	539	429
135°	645	659	672	689	697	497
145°	805	815	819	825	834	503
155°	939	945	940	942	947	431
165°	1025	1030	1022	1019	1025	289
175°	1068	1073	1059	1055	1055	101
180°	1066	1066	1066	1066	1066	

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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>1184.1</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>1178.6</i>	1168.9	1170.0	1179.5
10°	1148.6	<i>1168.3</i>	1158.2	1160.6	1168.8
12.5°	1136.6	<i>1156.7</i>	1146.5	1149.8	1158.0
15°	1118.5	<i>1137.1</i>	1126.3	1130.4	1138.6
17.5°	1091.6	<i>1110.4</i>	1100.1	1101.9	1110.1
20°	1071.5	<i>1089.0</i>	1082.7	1081.7	1089.9
22.5°	1047.4	<i>1066.2</i>	1061.2	1056.3	1065.8
25°	1009.5	<i>1028.1</i>	1022.9	1018.0	1024.5
27.5°	971.9	<i>988.0</i>	979.6	973.3	978.3
30°	942.4	<i>959.4</i>	949.7	942.5	947.4
32.5°	910.2	<i>928.0</i>	917.5	908.9	911.2
35°	860.2	<i>876.7</i>	868.6	856.9	856.9
37.5°	812.9	<i>825.9</i>	817.1	801.8	798.2
40°	778.1	<i>792.3</i>	780.9	762.8	757.9
42.5°	741.8	<i>756.1</i>	744.2	723.9	716.3
45°	689.2	<i>699.1</i>	685.3	663.8	654.0
47.5°	634.9	<i>645.9</i>	627.4	603.4	591.6
50°	598.6	<i>610.1</i>	590.3	563.1	550.0
52.5°	563.8	<i>573.5</i>	553.2	523.8	512.9
55°	508.1	<i>519.1</i>	498.6	469.3	459.0
57.5°	456.1	<i>466.8</i>	444.3	421.8	412.8
60°	422.6	<i>431.9</i>	410.3	390.1	382.0
62.5°	385.0	<i>395.2</i>	375.9	362.5	356.1
65°	335.4	<i>343.6</i>	331.6	322.8	320.1
67.5°	288.8	<i>295.4</i>	290.3	291.4	291.7
70°	256.6	<i>263.2</i>	265.7	272.7	273.9
72.5°	227.0	<i>233.3</i>	245.2	257.2	259.7
75°	181.1	<i>190.0</i>	217.3	237.3	242.8
77.5°	140.9	<i>150.2</i>	195.4	222.0	229.5
80°	114.0	<i>129.5</i>	183.4	214.1	222.4
82.5°	89.9	<i>111.5</i>	174.5	209.3	217.6
85°	55.3	<i>93.4</i>	164.7	202.1	212.1
87.5°	26.7	<i>79.3</i>	154.8	194.4	205.8
90°	13.0	<i>70.7</i>	146.4	187.3	200.0
92.5°	33.7	<i>74.8</i>	150.1	190.1	200.6
95°	67.7	<i>89.3</i>	160.8	201.0	209.3
97.5°	100.5	<i>111.8</i>	177.4	214.4	222.6
100°	123.1	<i>130.4</i>	191.0	226.7	234.4
102.5°	147.1	<i>151.8</i>	207.4	241.3	249.4
105°	183.1	<i>188.8</i>	233.6	267.6	274.2
107.5°	223.2	<i>229.6</i>	267.0	298.6	304.8
110°	249.9	<i>259.4</i>	291.9	320.3	327.5

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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	279.8	289.3	318.2	343.9	351.1
115°	322.9	334.1	361.0	382.6	388.1
117.5°	368.0	380.7	405.0	424.7	430.0
120°	401.1	413.3	436.2	455.0	459.5
122.5°	430.9	444.5	467.9	486.7	491.1
125°	478.6	494.1	516.6	534.2	538.7
127.5°	527.5	543.3	563.9	581.8	587.6
130°	562.4	576.8	594.7	613.5	620.2
132.5°	594.1	608.5	625.0	644.3	651.8
135°	645.0	659.4	672.2	689.4	697.1
137.5°	694.2	708.1	717.9	731.5	741.2
140°	727.7	739.8	746.9	759.5	768.4
142.5°	758.4	770.6	775.9	786.7	795.6
145°	804.6	814.6	819.3	825.2	834.0
147.5°	847.8	857.6	859.6	864.7	870.2
150°	875.9	884.8	885.0	887.3	892.9
152.5°	902.2	910.1	907.6	909.1	915.5
155°	939.3	944.8	940.4	941.7	947.2
157.5°	968.7	974.2	967.3	969.5	973.9
160°	986.8	992.3	984.5	985.8	990.2
162.5°	1004.0	1007.8	1000.8	999.4	1005.6
165°	1025.3	1029.7	1021.9	1018.6	1025.3
167.5°	1043.4	1047.8	1037.5	1034.0	1040.7
170°	1052.4	1056.9	1045.7	1041.3	1047.9
172.5°	1060.6	1065.0	1052.9	1047.6	1052.4
175°	1068.3	1072.7	1059.2	1054.7	1054.7
177.5°	1070.6	1073.2	1063.3	1058.9	1064.2
180°	1066.0	1066.0	1066.0	1066.0	1066.0

(END OF REPORT)