

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: P644447

Luminaire Tested: CRQ4DIP-SR4F0-75D75U830-FLLFLL-1DUDD-WW

Issue Date: 2/20/2023



Test Information

Test Method: LM-79-2019
Report Number: P644447
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-SR4F0-75D75U830-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: 3000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

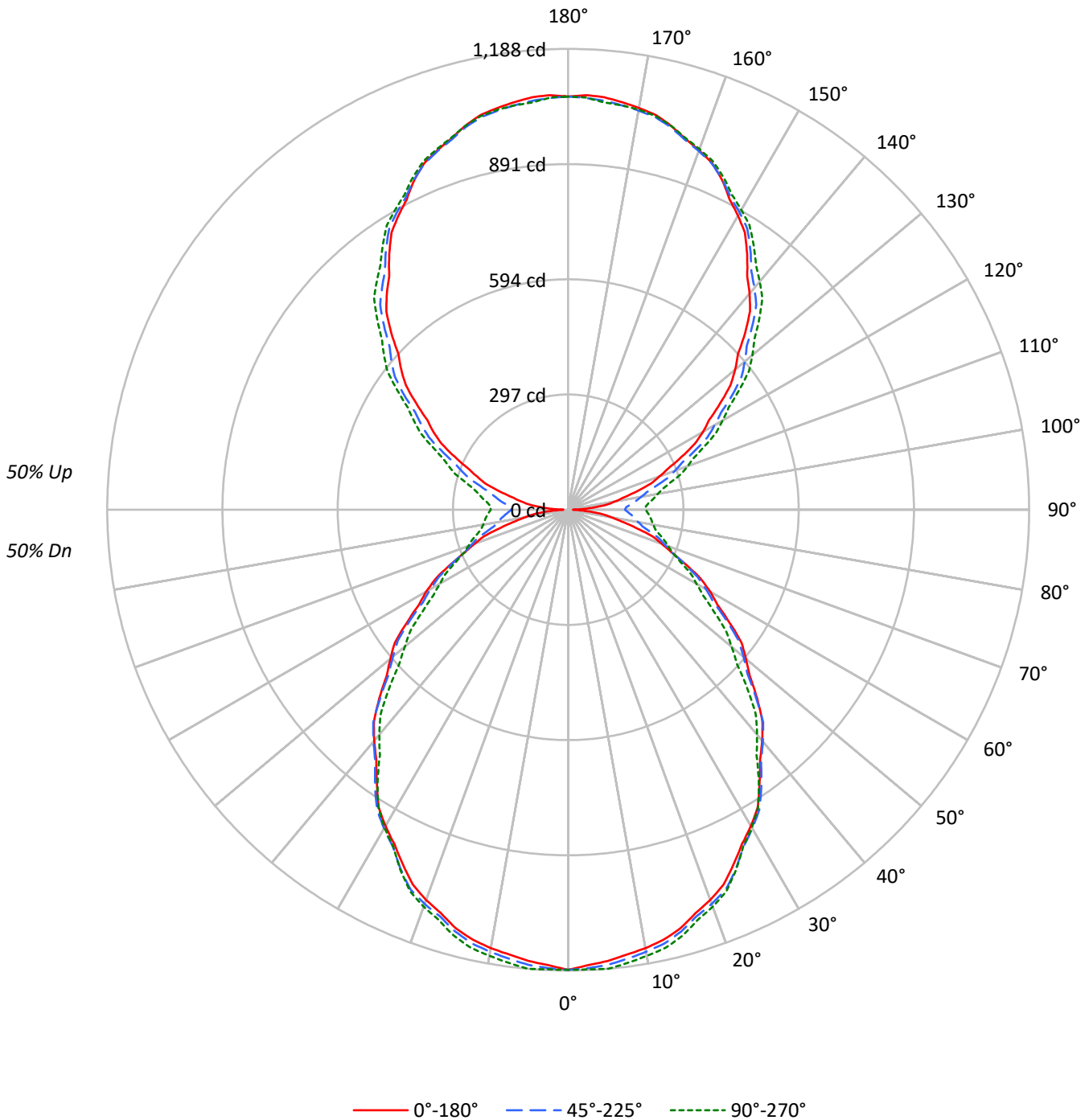
Lumens per Lamp: N/A
Luminaire Lumens: 6203.4 lumens
Efficiency: N/A
Efficacy: 145.6 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.19 / 1.3
Luminous Opening: Rectangular w/ Sides (W: 0.17' x L: 4' x H: 0.33')
CIE Type: General Diffuse

Input Watts (W): 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	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°	19151	19151	19151
5°	18789	16910	16384
10°	18542	15059	14153
15°	18270	13486	12380
20°	17852	12099	10829
25°	17294	10792	9436
30°	16747	9559	8190
35°	16005	8421	7030
40°	15314	7354	5959
45°	14514	6322	4973
50°	13666	5376	4079
55°	12769	4518	3348
60°	11914	3728	2760
65°	10861	3043	2310
70°	9845	2483	1989
75°	8608	2084	1788
80°	7192	1821	1674
85°	5247	1708	1645

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 14514 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	112.0	1.8
10°-20°	317.9	5.1
20°-30°	469.4	7.6
30°-40°	540.1	8.7
40°-50°	524.1	8.4
50°-60°	441.7	7.1
60°-70°	330.5	5.3
70°-80°	228.8	3.7
80°-90°	162.8	2.6
90°-100°	163.8	2.6
100°-110°	245.3	4.0
110°-120°	355.9	5.7
120°-130°	458.8	7.4
130°-140°	518.3	8.4
140°-150°	512.0	8.3
150°-160°	433.0	7.0
160°-170°	288.3	4.6
170°-180°	100.8	1.6
0°-30°	899.2	14.5
0°-40°	1439.3	23.2
0°-60°	2405.1	38.8
0°-90°	3127.2	50.4
90°-120°	765.0	12.3
90°-150°	2254.0	36.3
90°-180°	3076.0	49.6
0°-180°	6203.4	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1186	1186	1186	1186	1186	
5°	1168	1189	1178	1180	1188	111
15°	1117	1136	1125	1129	1138	314
25°	1008	1027	1022	1017	1024	465
35°	859	876	868	856	856	538
45°	689	698	685	663	653	531
55°	508	519	498	469	459	455
65°	335	343	331	322	320	333
75°	181	190	217	237	243	193
85°	55	93	164	202	212	59
90°	13	71	146	187	200	12
95°	68	89	161	201	209	67
105°	183	189	233	267	274	195
115°	323	334	361	382	388	320
125°	478	494	516	534	538	428
135°	644	659	672	689	696	497
145°	804	814	819	824	833	502
155°	938	944	940	941	946	431
165°	1024	1029	1021	1018	1024	289
175°	1067	1072	1058	1054	1054	101
180°	1065	1065	1065	1065	1065	

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1186.1	<i>1186.1</i>	1186.1	1186.1	1186.1
2.5°	<i>1175.4</i>	<i>1192.4</i>	<i>1183.0</i>	<i>1184.8</i>	<i>1186.1</i>
5°	1167.7	<i>1189.0</i>	1177.8	1179.6	1187.8
7.5°	1157.0	<i>1177.5</i>	1167.8	1168.9	1178.4
10°	1147.6	<i>1167.3</i>	1157.1	1159.5	1167.7
12.5°	1135.5	<i>1155.7</i>	1145.5	1148.8	1157.0
15°	1117.4	<i>1136.0</i>	1125.3	1129.4	1137.5
17.5°	1090.6	<i>1109.4</i>	1099.1	1100.9	1109.1
20°	1070.5	<i>1088.0</i>	1081.7	1080.8	1089.0
22.5°	1046.4	<i>1065.2</i>	1060.3	1055.3	1064.8
25°	1008.5	<i>1027.1</i>	1021.9	1017.1	1023.6
27.5°	971.0	<i>987.1</i>	978.7	972.5	977.4
30°	941.5	<i>958.5</i>	948.8	941.6	946.6
32.5°	909.4	<i>927.2</i>	916.7	908.1	910.4
35°	859.4	<i>875.9</i>	867.9	856.1	856.1
37.5°	812.2	<i>825.1</i>	816.3	801.1	797.5
40°	777.4	<i>791.6</i>	780.2	762.2	757.2
42.5°	741.2	<i>755.4</i>	743.5	723.2	715.7
45°	688.6	<i>698.4</i>	684.7	663.2	653.4
47.5°	634.3	<i>645.4</i>	626.8	602.8	591.1
50°	598.1	<i>609.6</i>	589.8	562.6	549.5
52.5°	563.2	<i>573.0</i>	552.7	523.4	512.4
55°	507.6	<i>518.6</i>	498.2	468.9	458.6
57.5°	455.7	<i>466.3</i>	443.9	421.4	412.4
60°	422.2	<i>431.5</i>	410.0	389.8	381.6
62.5°	384.7	<i>394.9</i>	375.6	362.2	355.8
65°	335.1	<i>343.3</i>	331.3	322.5	319.8
67.5°	288.5	<i>295.1</i>	290.0	291.1	291.4
70°	256.3	<i>263.0</i>	265.5	272.5	273.7
72.5°	226.8	<i>233.0</i>	245.0	257.0	259.4
75°	180.9	<i>189.8</i>	217.1	237.0	242.6
77.5°	140.7	<i>150.0</i>	195.2	221.8	229.3
80°	113.9	<i>129.4</i>	183.2	213.9	222.2
82.5°	89.8	<i>111.4</i>	174.4	209.1	217.4
85°	55.3	<i>93.3</i>	164.5	202.0	211.9
87.5°	26.7	<i>79.2</i>	154.7	194.2	205.6
90°	12.9	<i>70.6</i>	146.2	187.1	199.8
92.5°	33.7	<i>74.7</i>	150.0	189.9	200.4
95°	67.6	<i>89.2</i>	160.7	200.9	209.1
97.5°	100.4	<i>111.7</i>	177.2	214.2	222.4
100°	123.0	<i>130.3</i>	190.8	226.5	234.2
102.5°	147.0	<i>151.7</i>	207.2	241.1	249.2
105°	183.0	<i>188.6</i>	233.4	267.4	274.0
107.5°	223.0	<i>229.4</i>	266.8	298.3	304.6
110°	249.7	<i>259.2</i>	291.7	320.1	327.2

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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	279.6	289.1	317.9	343.6	350.8
115°	322.7	333.8	360.6	382.2	387.8
117.5°	367.7	380.3	404.6	424.3	429.6
120°	400.7	412.9	435.8	454.6	459.0
122.5°	430.6	444.1	467.5	486.3	490.7
125°	478.2	493.7	516.1	533.8	538.2
127.5°	527.0	542.8	563.4	581.3	587.0
130°	561.9	576.3	594.1	613.0	619.6
132.5°	593.6	608.0	624.4	643.7	651.2
135°	644.5	658.8	671.6	688.7	696.5
137.5°	693.5	707.5	717.3	730.8	740.6
140°	727.0	739.2	746.2	758.9	767.7
142.5°	757.8	769.9	775.2	786.0	794.8
145°	803.9	813.8	818.6	824.4	833.3
147.5°	847.1	856.8	858.8	863.9	869.5
150°	875.1	884.0	884.2	886.5	892.1
152.5°	901.3	909.3	906.8	908.3	914.7
155°	938.4	944.0	939.6	940.8	946.3
157.5°	967.8	973.4	966.5	968.6	973.0
160°	985.9	991.4	983.7	984.9	989.3
162.5°	1003.1	1006.9	999.9	998.5	1004.7
165°	1024.4	1028.8	1021.0	1017.7	1024.4
167.5°	1042.5	1046.9	1036.6	1033.1	1039.7
170°	1051.5	1055.9	1044.7	1040.3	1047.0
172.5°	1059.6	1064.1	1051.9	1046.6	1051.5
175°	1067.3	1071.7	1058.3	1053.8	1053.8
177.5°	1069.6	1072.2	1062.4	1057.9	1063.3
180°	1065.1	1065.1	1065.1	1065.1	1065.1

(END OF REPORT)