

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: P644425

Luminaire Tested: CRQ4DIP-SR4F0-75D25U835-FLLFLL-1DUDD-WW

Issue Date: 2/20/2023



Test Information

Test Method: LM-79-2019
Report Number: P644425
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-SR4F0-75D25U835-FLLFLL-1DUDD-WW
Description: NEO-RAY CIRQUE SUSPENDED LED LUMINAIRE
DOWNLIGHT - CURVED FROSTED LENS - 750 LUMENS PER FOOT
UPLIGHT - CURVED FROSTED LENS - 250 LUMENS PER FOOT
Light Source: 3500K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

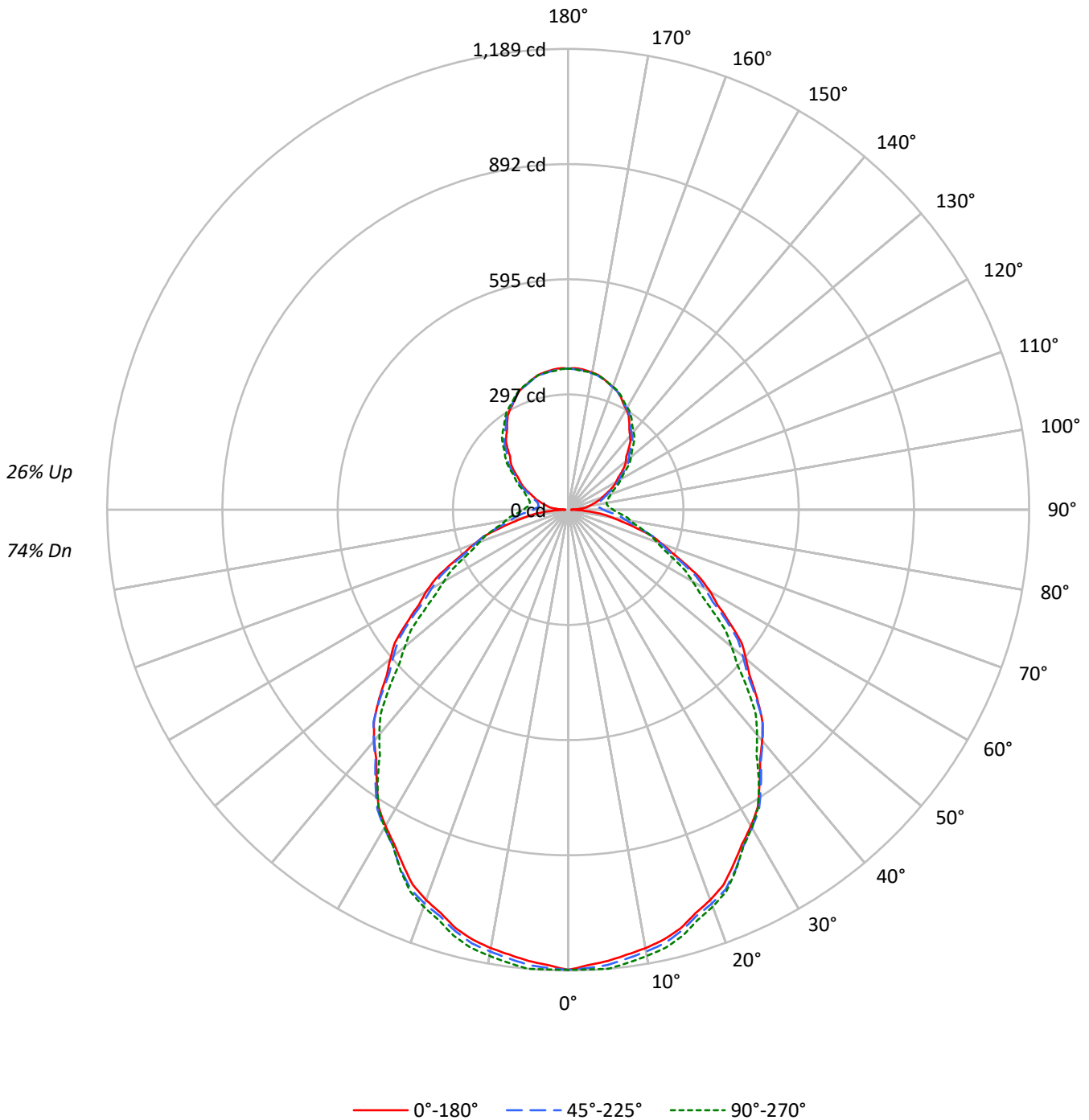
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4135.7 lumens
Efficiency: N/A
Efficacy: 137.4 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: Semi-Direct

Input Watts (W): 30.1
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	0
RCR																				
0	113	113	113	113	107	107	107	107	96	96	96		87	87	87		78	78	78	74
1	103	98	94	90	97	93	89	86	84	81	78		76	73	71		68	66	65	61
2	93	85	79	73	88	81	76	71	74	69	65		66	63	60		60	57	55	51
3	85	75	68	61	81	72	65	59	65	59	55		59	54	51		53	50	47	43
4	78	67	59	52	74	64	56	50	58	52	47		53	48	44		48	44	40	37
5	72	60	51	45	68	57	49	44	52	46	41		47	42	38		43	39	35	33
6	66	54	45	39	63	52	44	38	47	41	36		43	38	33		39	35	31	29
7	62	49	41	35	58	47	39	34	43	36	32		39	34	30		36	31	28	25
8	57	45	36	31	54	43	35	30	39	33	28		36	31	27		33	28	25	23
9	54	41	33	28	51	39	32	27	36	30	26		33	28	24		31	26	23	21
10	50	38	30	25	48	36	29	24	33	27	23		31	26	22		28	24	21	19

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	19168	19168	19168
5°	18806	16924	16400
10°	18559	15063	14167
15°	18288	13489	12392
20°	17869	12101	10838
25°	17311	10802	9444
30°	16763	9553	8197
35°	16020	8406	7036
40°	15328	7353	5965
45°	14526	6320	4978
50°	13678	5361	4083
55°	12782	4508	3313
60°	11925	3703	2677
65°	10871	2977	2161
70°	9857	2367	1763
75°	8617	1879	1466
80°	7198	1490	1238
85°	5247	1215	1068

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	2.7
10°-20°	318.0	7.7
20°-30°	469.5	11.4
30°-40°	540.0	13.1
40°-50°	523.9	12.7
50°-60°	439.6	10.6
60°-70°	320.9	7.8
70°-80°	205.2	5.0
80°-90°	117.4	2.8
90°-100°	80.4	1.9
100°-110°	92.7	2.2
110°-120°	124.7	3.0
120°-130°	158.1	3.8
130°-140°	177.3	4.3
140°-150°	175.0	4.2
150°-160°	148.0	3.6
160°-170°	98.5	2.4
170°-180°	34.5	0.8
0°-30°	899.6	21.8
0°-40°	1439.6	34.8
0°-60°	2403.1	58.1
0°-90°	3046.6	73.7
90°-120°	297.8	7.2
90°-150°	808.1	19.5
90°-180°	1089.0	26.3
0°-180°	4135.7	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	1136	1126	1130	1139	315
25°	1010	1027	1023	1018	1024	465
35°	860	874	866	857	857	539
45°	689	697	684	664	654	531
55°	508	516	497	467	454	456
65°	335	339	324	306	299	334
75°	181	184	196	199	199	194
85°	55	76	117	134	138	58
90°	8	46	90	110	116	8
95°	34	40	78	100	104	32
105°	74	69	85	101	106	78
115°	118	118	126	133	135	117
125°	168	171	178	182	184	150
135°	220	225	230	235	238	170
145°	275	278	280	282	285	172
155°	321	323	321	322	323	147
165°	350	352	349	348	350	99
175°	365	366	362	360	360	35
180°	364	364	364	364	364	



TEST NUMBER: P644425

CATALOG NUMBER: CRQ4DIP-SR4F0-75D25U835-FLLFLL-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>1183.5</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>1178.0</i>	1168.1	1170.0	1179.5
10°	1148.6	<i>1168.3</i>	1157.4	1160.6	1168.8
12.5°	1136.6	<i>1155.5</i>	1146.4	1149.8	1158.0
15°	1118.5	<i>1135.6</i>	1125.5	1130.4	1138.6
17.5°	1091.6	<i>1109.7</i>	1099.4	1101.9	1110.1
20°	1071.5	<i>1088.3</i>	1081.9	1081.7	1089.9
22.5°	1047.4	<i>1065.4</i>	1060.5	1056.3	1065.8
25°	1009.5	<i>1026.6</i>	1022.9	1018.0	1024.5
27.5°	971.9	<i>985.4</i>	978.7	973.3	978.3
30°	942.4	<i>957.9</i>	948.2	942.5	947.4
32.5°	910.2	<i>926.0</i>	916.0	908.9	911.2
35°	860.2	<i>874.5</i>	866.4	856.9	856.9
37.5°	812.9	<i>823.0</i>	816.3	801.8	798.2
40°	778.1	<i>789.4</i>	780.1	762.8	757.9
42.5°	741.8	<i>753.2</i>	742.9	723.9	716.3
45°	689.2	<i>696.9</i>	684.5	663.8	654.0
47.5°	634.9	<i>643.2</i>	626.3	603.4	591.6
50°	598.6	<i>608.0</i>	588.1	563.1	550.0
52.5°	563.8	<i>570.8</i>	551.5	523.2	511.7
55°	508.1	<i>516.2</i>	497.1	467.0	453.8
57.5°	456.1	<i>463.8</i>	441.9	415.1	404.4
60°	422.6	<i>429.0</i>	407.3	380.4	370.1
62.5°	385.0	<i>391.7</i>	371.7	349.8	340.0
65°	335.4	<i>339.3</i>	324.1	305.5	299.2
67.5°	288.8	<i>291.0</i>	280.0	268.8	264.6
70°	256.6	<i>258.8</i>	253.1	246.5	242.6
72.5°	227.0	<i>228.3</i>	228.4	226.2	223.6
75°	181.1	<i>184.1</i>	195.7	199.1	198.9
77.5°	140.9	<i>142.3</i>	167.2	175.8	177.3
80°	114.0	<i>119.3</i>	149.9	162.5	164.3
82.5°	89.9	<i>99.0</i>	136.2	151.2	152.9
85°	55.3	<i>75.9</i>	117.0	134.2	137.6
87.5°	25.7	<i>56.8</i>	100.6	119.8	123.9
90°	7.7	<i>45.8</i>	89.7	110.3	115.8
92.5°	18.4	<i>42.1</i>	83.9	104.3	109.8
95°	34.2	<i>40.5</i>	78.1	99.6	103.5
97.5°	47.6	<i>44.7</i>	77.3	96.4	100.5
100°	55.3	<i>50.2</i>	78.5	96.2	101.0
102.5°	62.6	<i>56.6</i>	80.5	97.7	101.7
105°	73.6	<i>69.0</i>	85.3	101.4	105.8
107.5°	85.9	<i>81.9</i>	94.3	108.2	111.4
110°	94.2	<i>92.0</i>	101.9	113.8	117.3



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	104.4	102.2	110.9	120.1	123.6
115°	118.0	117.5	125.5	132.8	134.7
117.5°	132.1	133.4	140.3	145.9	147.7
120°	142.5	144.5	150.1	155.4	156.9
122.5°	152.7	154.3	160.9	166.2	167.7
125°	167.8	171.0	177.5	182.4	183.9
127.5°	183.2	187.7	193.6	198.7	200.6
130°	194.2	199.1	204.2	209.5	211.7
132.5°	203.3	208.2	213.6	220.0	222.6
135°	220.2	225.2	229.5	235.4	238.0
137.5°	237.0	241.8	245.1	249.8	253.1
140°	248.5	252.6	255.0	259.3	262.4
142.5°	259.0	263.1	264.9	268.6	271.6
145°	274.7	278.1	279.8	281.8	284.8
147.5°	289.5	292.8	293.5	295.3	297.1
150°	299.1	302.1	302.2	303.0	304.9
152.5°	308.0	310.8	309.9	310.4	312.6
155°	320.7	322.6	321.1	321.5	323.4
157.5°	330.8	332.6	330.3	331.0	332.5
160°	336.9	338.8	336.2	336.6	338.1
162.5°	342.8	344.1	341.7	341.2	343.4
165°	350.1	351.6	348.9	347.8	350.1
167.5°	356.3	357.8	354.3	353.1	355.3
170°	359.4	360.9	357.0	355.5	357.8
172.5°	362.1	363.6	359.5	357.7	359.4
175°	364.8	366.3	361.7	360.1	360.1
177.5°	365.5	366.4	363.1	361.6	363.4
180°	364.0	364.0	364.0	364.0	364.0

(END OF REPORT)