

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: P644233

Luminaire Tested: CRQ4DIP-SR4F0-100D75U835-FLLFLL-1DUDD-WW

Issue Date: 2/20/2023



Test Information

Test Method: LM-79-2019
Report Number: P644233
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-SR4F0-100D75U835-FLLFLL-1DUDD-WW
Description: NEO-RAY CIRQUE SUSPENDED LED LUMINAIRE
DOWNLIGHT - CURVED FROSTED LENS - 1000 LUMENS PER FOOT
UPLIGHT - CURVED FROSTED LENS - 750 LUMENS PER FOOT
Light Source: 3500K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

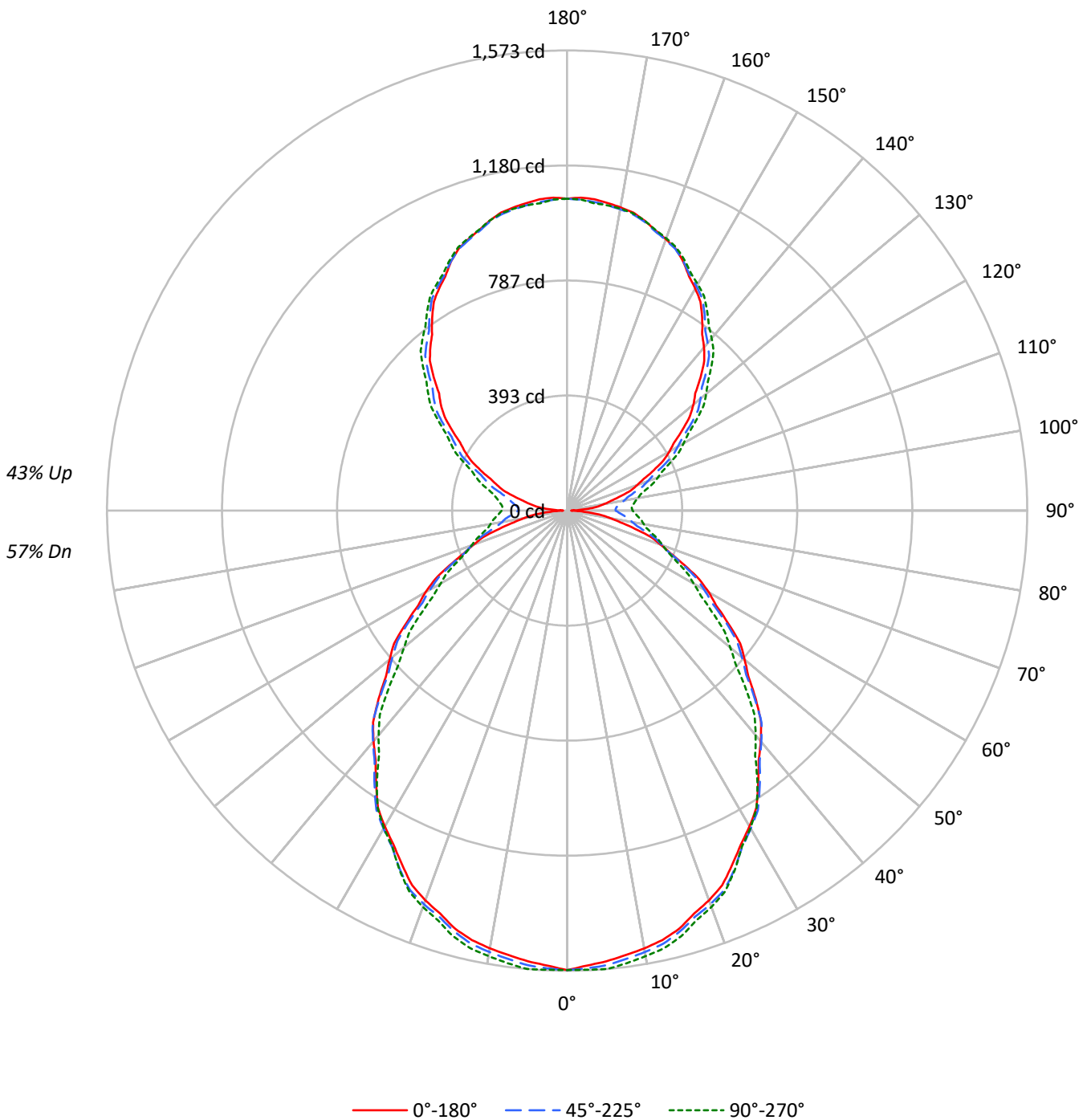
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 7197.9 lumens
Efficiency: N/A
Efficacy: 142.0 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): 50.7
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			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	109	109	109	109	101	101	101	101	87	87	87	74	74	74	63	63	63	57
1	99	94	90	86	92	88	84	81	76	73	70	64	63	61	54	53	52	47
2	90	82	76	70	83	77	71	66	66	62	58	57	53	51	48	45	43	39
3	82	72	65	59	76	67	61	55	58	53	49	50	46	43	42	39	37	33
4	75	64	56	50	70	60	53	47	52	46	42	45	40	37	38	35	32	28
5	69	57	49	43	64	53	46	40	47	41	36	40	36	32	34	31	28	25
6	64	51	43	37	59	48	41	35	42	36	32	36	32	28	31	27	25	22
7	59	46	38	33	55	44	36	31	38	32	28	33	28	25	28	25	22	19
8	55	42	34	29	51	40	33	28	35	29	25	30	26	22	26	22	20	17
9	51	39	31	26	47	36	29	25	32	26	22	28	23	20	24	21	18	16
10	48	35	28	23	44	33	27	22	30	24	20	26	21	18	22	19	16	14

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	25362	25362	25362
5°	24882	22393	21698
10°	24555	19938	18743
15°	24195	17855	16394
20°	23642	16018	14340
25°	22904	14292	12496
30°	22180	12652	10846
35°	21196	11140	9309
40°	20279	9735	7892
45°	19218	8368	6586
50°	18097	7109	5402
55°	16910	5977	4414
60°	15777	4923	3613
65°	14381	3997	2985
70°	13037	3230	2522
75°	11401	2658	2209
80°	9528	2248	2002
85°	6945	2019	1895

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 19218 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	148.3	2.1
10°-20°	420.9	5.8
20°-30°	621.4	8.6
30°-40°	714.9	9.9
40°-50°	693.8	9.6
50°-60°	583.7	8.1
60°-70°	432.8	6.0
70°-80°	291.3	4.0
80°-90°	193.2	2.7
90°-100°	176.0	2.4
100°-110°	249.9	3.5
110°-120°	357.7	5.0
120°-130°	459.8	6.4
130°-140°	518.8	7.2
140°-150°	512.4	7.1
150°-160°	433.4	6.0
160°-170°	288.6	4.0
170°-180°	100.9	1.4
0°-30°	1190.6	16.5
0°-40°	1905.6	26.5
0°-60°	3183.0	44.2
0°-90°	4100.4	57.0
90°-120°	783.5	10.9
90°-150°	2274.5	31.6
90°-180°	3097.0	43.0
0°-180°	7197.9	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1571	1571	1571	1571	1571	
5°	1546	1575	1560	1562	1573	147
15°	1480	1504	1490	1496	1506	416
25°	1336	1360	1353	1347	1356	615
35°	1138	1159	1148	1134	1134	713
45°	912	924	906	878	865	703
55°	672	685	659	620	605	603
65°	444	452	435	419	413	441
75°	240	248	277	295	300	256
85°	73	115	194	234	244	78
90°	15	81	166	210	223	14
95°	73	94	172	216	225	72
105°	188	191	236	272	280	201
115°	327	336	362	384	389	324
125°	481	495	517	534	539	431
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°	1570.8	1570.8	1570.8	1570.8	1570.8
2.5°	1556.6	1579.1	1566.3	1569.0	1570.8
5°	1546.4	1574.6	1559.7	1562.1	1573.0
7.5°	1532.2	1559.1	1546.2	1548.0	1560.6
10°	1519.7	1545.8	1532.0	1535.5	1546.4
12.5°	1503.8	1529.8	1516.9	1521.3	1532.2
15°	1479.8	1503.7	1489.8	1495.6	1506.4
17.5°	1444.3	1468.8	1455.2	1457.9	1468.7
20°	1417.7	1440.5	1432.1	1431.2	1442.1
22.5°	1385.7	1410.3	1403.7	1397.6	1410.1
25°	1335.6	1359.5	1353.3	1346.9	1355.6
27.5°	1285.9	1305.9	1295.7	1287.8	1294.3
30°	1246.9	1268.6	1255.8	1247.0	1253.5
32.5°	1204.3	1226.9	1213.2	1202.5	1205.6
35°	1138.1	1158.8	1148.2	1133.7	1133.7
37.5°	1075.6	1091.3	1080.7	1060.8	1056.1
40°	1029.4	1046.9	1032.8	1009.3	1002.8
42.5°	981.5	999.0	984.0	957.8	947.8
45°	911.8	923.8	906.3	878.3	865.3
47.5°	840.0	853.3	829.6	798.3	782.7
50°	792.0	806.2	779.9	745.1	727.7
52.5°	745.9	757.5	731.1	692.8	678.0
55°	672.2	685.3	659.0	619.8	604.7
57.5°	603.5	616.1	586.7	554.8	542.0
60°	559.1	570.0	541.4	511.4	499.5
62.5°	509.4	521.2	495.3	473.4	463.3
65°	443.7	452.5	435.1	418.6	413.3
67.5°	382.0	388.7	379.0	374.5	372.7
70°	339.4	346.1	345.4	348.0	347.0
72.5°	300.4	306.2	316.2	325.1	325.9
75°	239.6	248.5	276.9	295.2	299.7
77.5°	186.4	194.8	244.7	271.1	278.0
80°	150.9	166.4	226.2	258.0	265.8
82.5°	118.9	141.4	212.1	248.4	256.2
85°	73.2	115.0	194.4	234.1	244.1
87.5°	34.9	93.9	178.2	220.6	232.1
90°	14.6	81.3	165.9	210.0	223.3
92.5°	37.1	82.9	166.2	209.4	220.8
95°	73.1	94.2	172.2	216.2	225.0
97.5°	107.0	115.0	185.6	225.8	234.6
100°	129.6	133.2	197.5	236.0	244.7
102.5°	153.2	154.1	212.1	248.8	257.6
105°	188.5	191.0	236.3	272.5	280.2
107.5°	228.0	231.3	268.5	301.6	308.4
110°	254.3	261.1	293.0	322.5	330.2

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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	284.1	291.0	319.3	345.2	352.9
115°	326.7	335.8	362.0	383.7	389.2
117.5°	371.2	382.3	406.0	425.1	430.4
120°	403.8	414.9	436.8	455.0	459.5
122.5°	433.7	445.7	468.5	486.7	491.1
125°	480.8	495.2	517.1	534.2	538.7
127.5°	529.0	544.3	564.4	581.8	587.6
130°	563.5	577.9	595.2	613.5	620.2
132.5°	594.3	608.7	625.1	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)