

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: P644470

Luminaire Tested: CRQ4DP-SR4F0-125D940-FLL-1DUDD-WW

Issue Date: 2/20/2023



Test Information

Test Method: LM-79-2019
Report Number: P644470
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2206-689-14)
Test Lab: INNOVATION CENTER
Issue Date: 2/20/2023
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: CRQ4DP-SR4F0-125D940-FLL-1DUDD-WW
Description: NEO-RAY CIRQUE SUSPENDED LED LUMINAIRE
DOWNLIGHT - CURVED FROSTED LENS - 1250 LUMENS PER FOOT
DIRECT ONLY
Light Source: 4000K CCT, 90 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

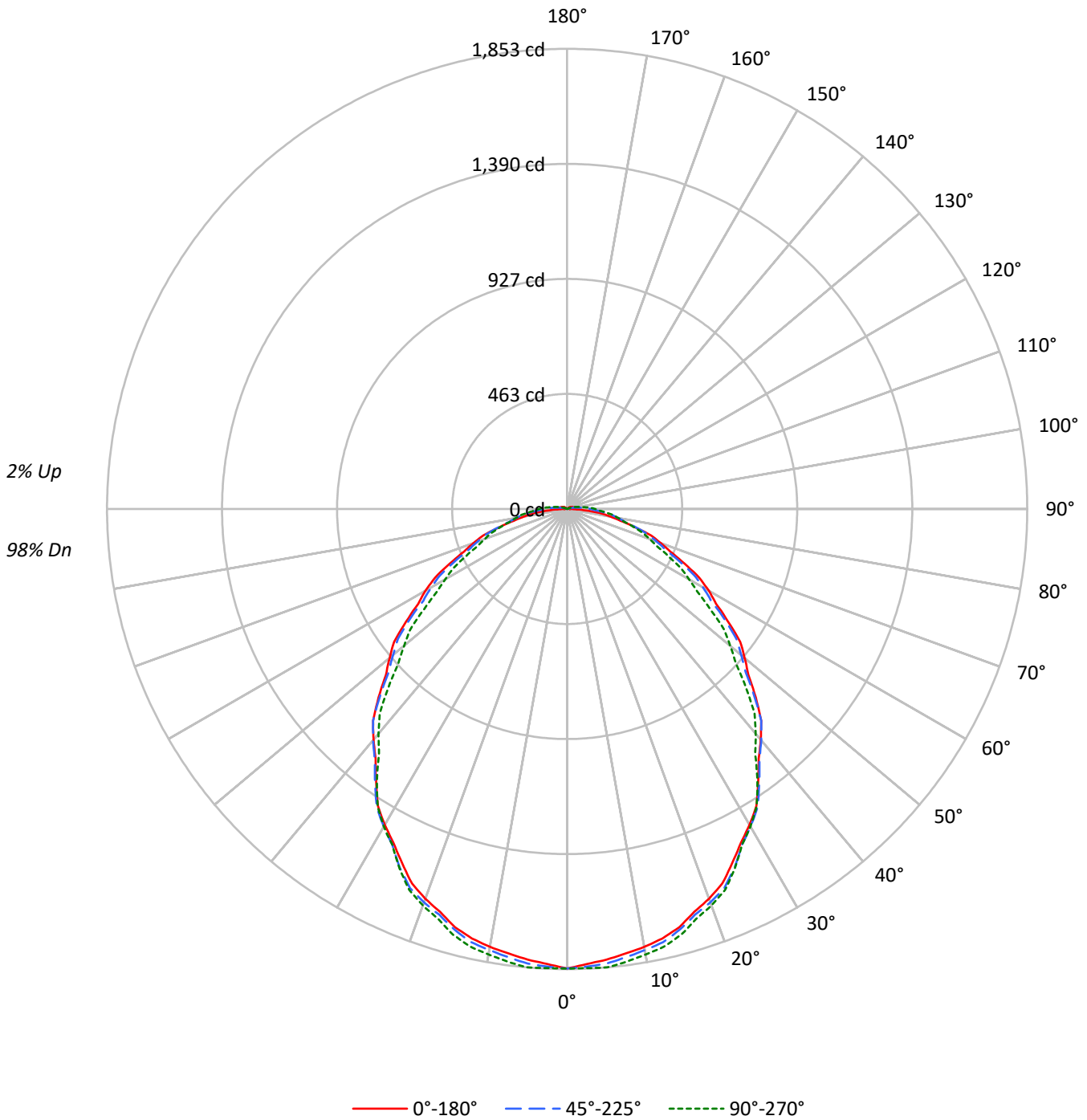
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4770.6 lumens
Efficiency: N/A
Efficacy: 119.3 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: 0.02')
CIE Type: Direct

Input Watts (W): 40
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

TEST NUMBER: P644470
CATALOG NUMBER: CRQ4DP-SR4F0-125D940-FLL-1DUDD-WW

Luminous Intensity Polar Plot





TEST NUMBER: P644470

CATALOG NUMBER: CRQ4DP-SR4F0-125D940-FLL-1DUDD-WW

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	119	119	119	119	116	116	116	116	110	110	110	105	105	105	100	100	100	98
1	108	103	99	95	105	101	97	93	96	93	90	92	89	87	88	86	84	82
2	99	91	84	78	96	88	82	77	85	79	75	81	77	73	78	74	71	69
3	90	80	72	65	88	78	71	65	75	69	63	72	67	62	69	65	61	58
4	83	71	62	56	80	70	62	55	67	60	54	64	58	53	62	57	53	50
5	76	64	55	48	74	63	54	48	60	53	47	58	52	47	56	50	46	44
6	71	58	49	43	69	57	48	42	55	47	42	53	46	41	51	45	41	39
7	66	52	44	38	64	51	43	38	50	42	37	48	42	37	47	41	36	34
8	61	48	40	34	60	47	39	34	46	38	33	44	38	33	43	37	33	31
9	57	44	36	31	56	43	36	30	42	35	30	41	35	30	40	34	30	28
10	54	41	33	28	52	40	33	28	39	32	27	38	32	27	37	31	27	25

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	29878	29878	29878
5°	29509	29495	29645
10°	29321	29002	29097
15°	29091	28473	28519
20°	28631	27846	27679
25°	27949	27011	26591
30°	27287	25880	25337
35°	26313	24675	23823
40°	25427	23443	22117
45°	24376	21927	20239
50°	23265	20305	18268
55°	22094	18809	16300
60°	21040	17144	14539
65°	19705	15418	12996
70°	18559	13914	11794
75°	17209	12699	10974
80°	15957	11804	10505
85°	14921	11772	10523

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 24376 cd/sqm



TEST NUMBER: P644470

CATALOG NUMBER: CRQ4DP-SR4F0-125D940-FLL-1DUDD-WW

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	174.7	3.7
10°-20°	495.6	10.4
20°-30°	731.6	15.3
30°-40°	841.2	17.6
40°-50°	816.0	17.1
50°-60°	683.1	14.3
60°-70°	492.2	10.3
70°-80°	300.7	6.3
80°-90°	146.1	3.1
90°-100°	57.8	1.2
100°-110°	20.9	0.4
110°-120°	7.3	0.2
120°-130°	3.0	0.1
130°-140°	0.4	0.0
140°-150°	0.0	0.0
150°-160°	0.0	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-30°	1401.9	29.4
0°-40°	2243.1	47.0
0°-60°	3742.2	78.4
0°-90°	4681.2	98.1
90°-120°	86.1	1.8
90°-150°	89.5	1.9
90°-180°	89.0	1.9
0°-180°	4770.6	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1850	1850	1850	1850	1850	
5°	1822	1855	1837	1840	1853	173
15°	1743	1769	1754	1762	1775	490
25°	1573	1599	1594	1587	1597	725
35°	1341	1361	1349	1336	1336	840
45°	1074	1084	1066	1035	1019	828
55°	792	802	774	726	703	710
65°	523	525	499	462	450	520
75°	282	282	288	280	274	302
85°	86	104	144	154	154	91
90°	8	51	94	110	112	10
95°	26	24	55	73	76	22
105°	26	11	13	24	29	28
115°	18	8	5	5	5	18
125°	10	5	3	0	0	9
135°	0	0	0	0	0	1
145°	0	0	0	0	0	0
155°	0	0	0	0	0	0
165°	0	0	0	0	0	0
175°	0	0	0	0	0	0
180°	0	0	0	0	0	0

TEST NUMBER: P644470

CATALOG NUMBER: CRQ4DP-SR4F0-125D940-FLL-1DUDD-WW

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1850.5	1850.5	1850.5	1850.5	1850.5
2.5°	1833.7	1860.3	1844.2	1848.4	1850.5
5°	1821.7	1854.9	1837.4	1840.3	1853.1
7.5°	1805.0	1835.7	1820.2	1823.6	1838.5
10°	1790.4	1821.0	1803.4	1808.9	1821.7
12.5°	1771.5	1800.2	1786.7	1792.2	1805.0
15°	1743.3	1768.9	1753.8	1761.9	1774.7
17.5°	1701.5	1729.1	1713.0	1717.5	1730.2
20°	1670.1	1695.7	1685.8	1686.1	1698.9
22.5°	1632.5	1660.1	1652.4	1646.4	1661.2
25°	1573.4	1599.0	1594.3	1586.7	1597.0
27.5°	1514.9	1533.8	1524.8	1517.1	1524.8
30°	1468.9	1491.9	1476.7	1469.1	1476.7
32.5°	1418.7	1441.7	1426.5	1416.7	1420.3
35°	1340.8	1361.3	1348.7	1335.6	1335.6
37.5°	1267.1	1280.4	1271.8	1249.7	1244.1
40°	1212.7	1228.1	1215.4	1189.0	1181.4
42.5°	1156.3	1171.6	1156.8	1128.3	1116.6
45°	1074.2	1084.4	1066.4	1034.7	1019.3
47.5°	989.5	1000.3	975.4	940.5	922.1
50°	933.1	945.9	914.8	877.7	857.3
52.5°	878.7	887.4	858.3	815.0	796.6
55°	791.9	802.2	773.6	726.1	703.1
57.5°	710.9	720.6	686.9	641.5	623.6
60°	658.6	666.3	632.5	585.1	567.2
62.5°	600.1	607.8	576.1	534.9	517.0
65°	522.7	525.3	499.2	462.3	449.6
67.5°	450.1	450.1	428.1	400.7	390.5
70°	399.9	399.9	384.2	363.1	352.8
72.5°	353.9	351.8	342.4	327.6	319.4
75°	282.3	282.3	287.5	279.5	274.4
77.5°	219.5	215.5	237.8	236.7	234.2
80°	177.7	177.7	206.5	211.6	209.1
82.5°	140.1	144.2	181.4	188.6	186.1
85°	86.3	104.1	143.8	154.2	154.2
87.5°	39.2	70.4	112.9	126.5	127.0
90°	7.8	51.3	94.1	109.8	112.4
92.5°	16.2	39.2	77.4	93.2	97.8
95°	26.1	23.6	54.9	73.2	75.8
97.5°	31.4	15.5	39.7	55.0	58.0
100°	31.4	13.5	31.4	44.5	49.7
102.5°	29.3	11.4	23.0	36.1	39.2
105°	26.1	10.8	13.1	23.6	28.8
107.5°	23.0	8.2	7.3	14.7	17.3
110°	20.9	8.1	5.2	10.5	13.1



TEST NUMBER: P644470

CATALOG NUMBER: CRQ4DP-SR4F0-125D940-FLL-1DUDD-WW

CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	20.9	8.1	5.2	6.3	8.9
115°	18.3	8.1	5.2	5.2	5.2
117.5°	15.2	8.0	4.7	2.1	2.1
120°	13.1	8.0	2.6	0.0	0.0
122.5°	13.1	5.9	2.6	0.0	0.0
125°	10.5	5.3	2.6	0.0	0.0
127.5°	7.3	5.3	2.6	0.0	0.0
130°	5.2	5.2	2.6	0.0	0.0
132.5°	1.0	1.0	0.5	0.0	0.0
135°	0.0	0.0	0.0	0.0	0.0
137.5°	0.0	0.0	0.0	0.0	0.0
140°	0.0	0.0	0.0	0.0	0.0
142.5°	0.0	0.0	0.0	0.0	0.0
145°	0.0	0.0	0.0	0.0	0.0
147.5°	0.0	0.0	0.0	0.0	0.0
150°	0.0	0.0	0.0	0.0	0.0
152.5°	0.0	0.0	0.0	0.0	0.0
155°	0.0	0.0	0.0	0.0	0.0
157.5°	0.0	0.0	0.0	0.0	0.0
160°	0.0	0.0	0.0	0.0	0.0
162.5°	0.0	0.0	0.0	0.0	0.0
165°	0.0	0.0	0.0	0.0	0.0
167.5°	0.0	0.0	0.0	0.0	0.0
170°	0.0	0.0	0.0	0.0	0.0
172.5°	0.0	0.0	0.0	0.0	0.0
175°	0.0	0.0	0.0	0.0	0.0
177.5°	0.0	0.0	0.0	0.0	0.0
180°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)