

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: P644469

Luminaire Tested: CRQ4DP-SR4F0-125D935-FLL-1DUDD-WW

Issue Date: 2/20/2023



Test Information

Test Method: LM-79-2019
Report Number: P644469
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-SR4F0-125D935-FLL-1DUDD-WW
Description: NEO-RAY CIRQUE SUSPENDED LED LUMINAIRE
DOWNLIGHT - CURVED FROSTED LENS - 1250 LUMENS PER FOOT
DIRECT ONLY
Light Source: 3500K CCT, 90 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

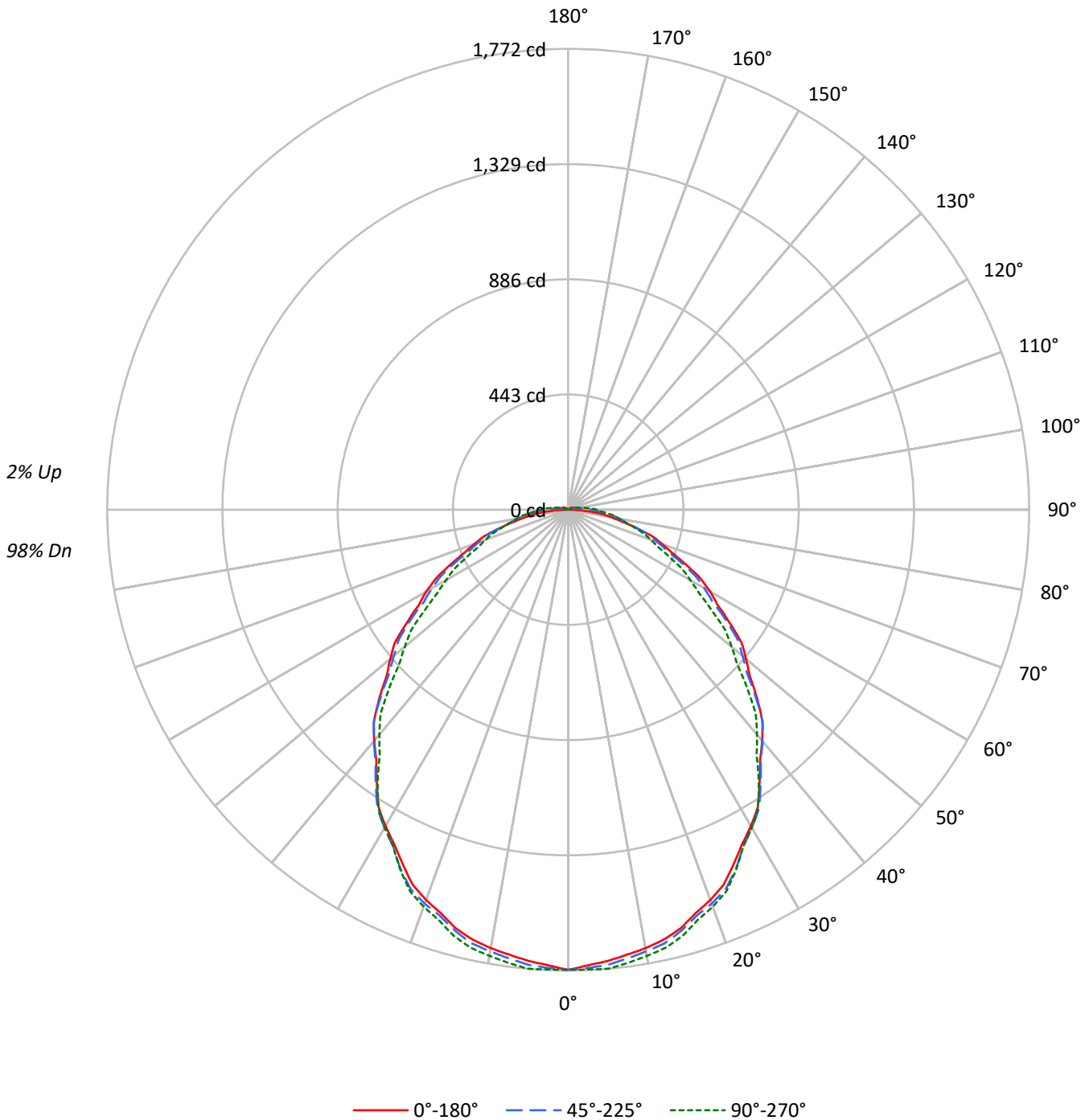
Lumens per Lamp: N/A
Luminaire Lumens: 4561.5 lumens
Efficiency: N/A
Efficacy: 114.0 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.19 / 1.3
Luminous Opening: Rectangular w/ Sides (W: 0.17' x L: 4' x H: 0.02')
CIE Type: Direct

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

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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	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°	28568	28568	28568
5°	28216	28202	28346
10°	28036	27731	27822
15°	27816	27224	27268
20°	27376	26625	26466
25°	26723	25827	25423
30°	26091	24746	24227
35°	25159	23592	22778
40°	24313	22415	21147
45°	23307	20965	19351
50°	22245	19415	17467
55°	21126	17984	15586
60°	20120	16393	13900
65°	18842	14742	12424
70°	17747	13305	11279
75°	16453	12142	10494
80°	15257	11284	10043
85°	14264	11249	10059

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 23307 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	167.0	3.7
10°-20°	473.9	10.4
20°-30°	699.6	15.3
30°-40°	804.3	17.6
40°-50°	780.2	17.1
50°-60°	653.1	14.3
60°-70°	470.6	10.3
70°-80°	287.5	6.3
80°-90°	139.7	3.1
90°-100°	55.3	1.2
100°-110°	20.0	0.4
110°-120°	7.0	0.2
120°-130°	2.9	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°	1340.5	29.4
0°-40°	2144.8	47.0
0°-60°	3578.2	78.4
0°-90°	4476.0	98.1
90°-120°	82.3	1.8
90°-150°	85.6	1.9
90°-180°	86.0	1.9
0°-180°	4561.5	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1769	1769	1769	1769	1769	
5°	1742	1774	1757	1760	1772	165
15°	1667	1691	1677	1685	1697	469
25°	1504	1529	1524	1517	1527	693
35°	1282	1302	1290	1277	1277	803
45°	1027	1037	1020	989	975	792
55°	757	767	740	694	672	679
65°	500	502	477	442	430	497
75°	270	270	275	267	262	289
85°	82	100	137	147	147	87
90°	8	49	90	105	108	9
95°	25	22	52	70	72	21
105°	25	10	12	23	28	26
115°	18	8	5	5	5	17
125°	10	5	2	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

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1769.4	1769.4	1769.4	1769.4	1769.4
2.5°	1753.4	1778.8	1763.4	1767.4	1769.4
5°	1741.9	1773.6	1756.9	1759.6	1771.9
7.5°	1725.9	1755.2	1740.4	1743.7	1757.9
10°	1711.9	1741.2	1724.4	1729.6	1741.9
12.5°	1693.9	1721.2	1708.4	1713.7	1725.9
15°	1666.9	1691.3	1676.9	1684.7	1696.9
17.5°	1626.9	1653.3	1637.9	1642.2	1654.4
20°	1596.9	1621.4	1611.9	1612.2	1624.4
22.5°	1560.9	1587.3	1579.9	1574.2	1588.4
25°	1504.4	1528.9	1524.4	1517.2	1526.9
27.5°	1448.5	1466.6	1458.0	1450.6	1458.0
30°	1404.5	1426.5	1412.0	1404.7	1412.0
32.5°	1356.5	1378.5	1364.0	1354.6	1358.0
35°	1282.0	1301.6	1289.5	1277.0	1277.0
37.5°	1211.6	1224.3	1216.1	1194.9	1189.6
40°	1159.6	1174.2	1162.1	1136.9	1129.6
42.5°	1105.6	1120.3	1106.1	1078.8	1067.6
45°	1027.1	1036.9	1019.6	989.3	974.6
47.5°	946.2	956.4	932.7	899.3	881.7
50°	892.2	904.4	874.7	839.2	819.7
52.5°	840.2	848.5	820.7	779.3	761.7
55°	757.2	767.0	739.7	694.2	672.3
57.5°	679.8	689.0	656.8	613.4	596.3
60°	629.8	637.1	604.8	559.4	542.3
62.5°	573.8	581.1	550.8	511.4	494.3
65°	499.8	502.3	477.3	442.1	429.8
67.5°	430.3	430.3	409.4	383.1	373.4
70°	382.4	382.4	367.4	347.2	337.4
72.5°	338.4	336.4	327.4	313.2	305.4
75°	269.9	269.9	274.9	267.3	262.4
77.5°	209.9	206.0	227.4	226.4	223.9
80°	169.9	169.9	197.4	202.4	199.9
82.5°	134.0	137.9	173.4	180.4	177.9
85°	82.5	99.6	137.4	147.4	147.4
87.5°	37.5	67.3	108.0	121.0	121.5
90°	7.5	49.0	90.0	105.0	107.5
92.5°	15.5	37.5	74.0	89.1	93.5
95°	25.0	22.5	52.5	70.0	72.5
97.5°	30.0	14.8	38.0	52.5	55.5
100°	30.0	12.9	30.0	42.6	47.5
102.5°	28.0	10.9	22.0	34.6	37.5
105°	25.0	10.3	12.5	22.6	27.5
107.5°	22.0	7.8	7.0	14.1	16.5
110°	20.0	7.8	5.0	10.1	12.5



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	20.0	7.8	5.0	6.1	8.5
115°	17.5	7.7	5.0	5.0	5.0
117.5°	14.5	7.7	4.5	2.0	2.0
120°	12.5	7.6	2.5	0.0	0.0
122.5°	12.5	5.7	2.5	0.0	0.0
125°	10.0	5.1	2.5	0.0	0.0
127.5°	7.0	5.0	2.5	0.0	0.0
130°	5.0	5.0	2.5	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)