

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: P644465

Luminaire Tested: CRQ4DP-SR4F0-125D830-FLL-1DUDD-WW

Issue Date: 2/20/2023



Test Information

Test Method: LM-79-2019
Report Number: P644465
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-SR4F0-125D830-FLL-1DUDD-WW
Description: NEO-RAY CIRQUE SUSPENDED LED LUMINAIRE
DOWNLIGHT - CURVED FROSTED LENS - 1250 LUMENS PER FOOT
DIRECT ONLY
Light Source: 3000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

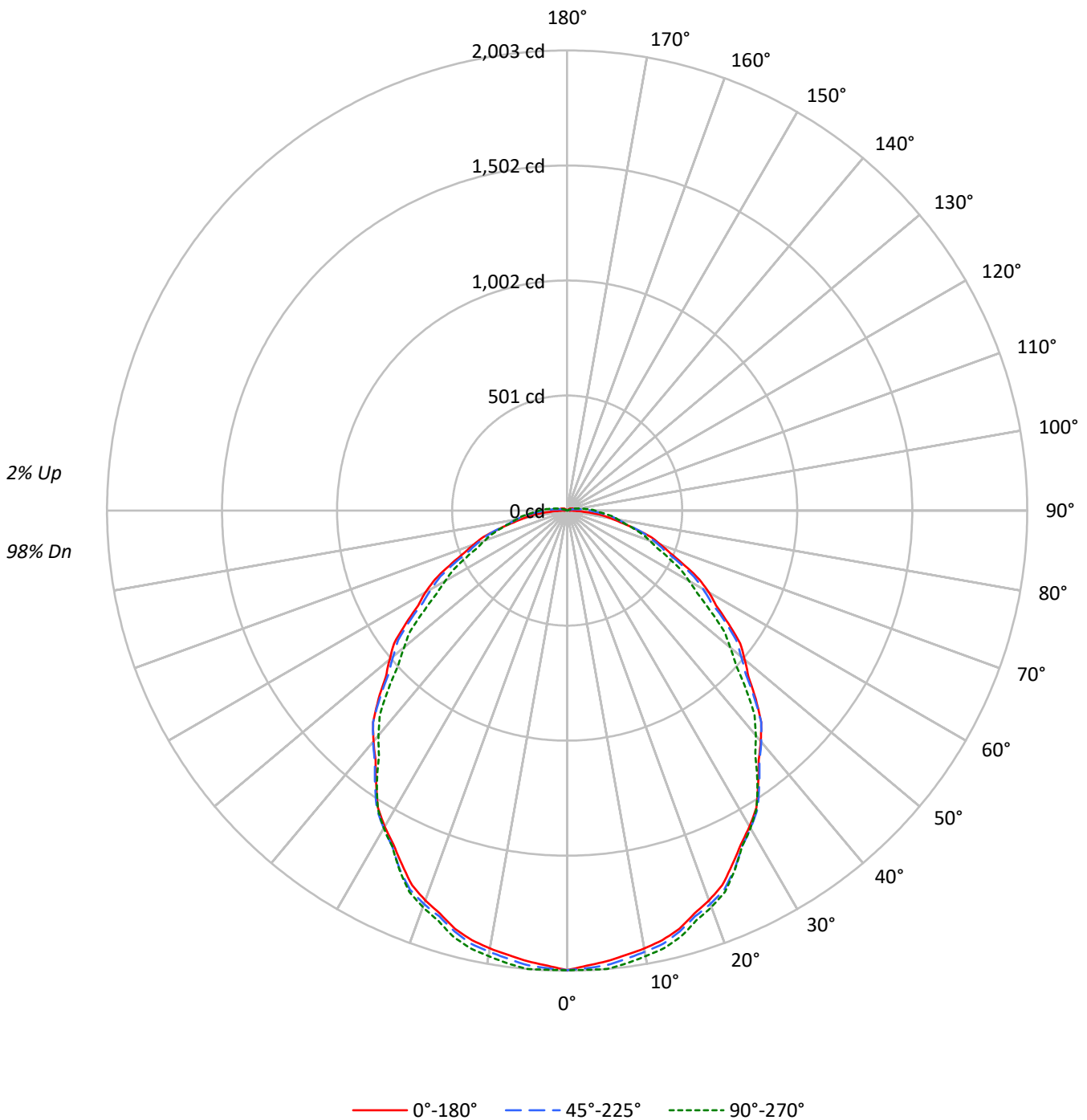
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 5157.4 lumens
Efficiency: N/A
Efficacy: 128.9 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 (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

TEST NUMBER: P644465
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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°	32300	32300	32300
5°	31902	31886	32048
10°	31697	31353	31456
15°	31451	30781	30831
20°	30952	30104	29923
25°	30215	29201	28745
30°	29500	27978	27391
35°	28446	26674	25755
40°	27490	25343	23910
45°	26352	23704	21881
50°	25150	21952	19749
55°	23886	20335	17621
60°	22745	18534	15715
65°	21304	16669	14048
70°	20063	15043	12754
75°	18605	13728	11866
80°	17250	12759	11354
85°	16114	12722	11377

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 26352 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	188.8	3.7
10°-20°	535.8	10.4
20°-30°	791.0	15.3
30°-40°	909.4	17.6
40°-50°	882.2	17.1
50°-60°	738.5	14.3
60°-70°	532.0	10.3
70°-80°	325.1	6.3
80°-90°	157.9	3.1
90°-100°	62.5	1.2
100°-110°	22.7	0.4
110°-120°	7.9	0.2
120°-130°	3.3	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°	1515.6	29.4
0°-40°	2425.0	47.0
0°-60°	4045.6	78.4
0°-90°	5060.7	98.1
90°-120°	93.1	1.8
90°-150°	96.7	1.9
90°-180°	97.0	1.9
0°-180°	5157.4	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2000	2000	2000	2000	2000	
5°	1969	2005	1986	1990	2003	187
15°	1885	1912	1896	1905	1919	530
25°	1701	1729	1724	1715	1726	784
35°	1450	1472	1458	1444	1444	908
45°	1161	1172	1153	1119	1102	895
55°	856	867	836	785	760	768
65°	565	568	540	500	486	562
75°	305	305	311	302	297	326
85°	93	113	155	167	167	98
90°	8	55	102	119	122	11
95°	28	26	59	79	82	24
105°	28	12	14	26	31	30
115°	20	9	6	6	6	19
125°	11	6	3	0	0	10
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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CATALOG NUMBER: CRQ4DP-SR4F0-125D830-FLL-1DUDD-WW

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2000.5	2000.5	2000.5	2000.5	2000.5
2.5°	1982.4	2011.2	1993.7	1998.3	2000.5
5°	1969.4	2005.3	1986.4	1989.5	2003.3
7.5°	1951.3	1984.5	1967.7	1971.5	1987.5
10°	1935.5	1968.7	1949.6	1955.6	1969.4
12.5°	1915.2	1946.1	1931.6	1937.5	1951.3
15°	1884.7	1912.3	1896.0	1904.8	1918.6
17.5°	1839.4	1869.3	1851.9	1856.7	1870.5
20°	1805.5	1833.2	1822.5	1822.8	1836.6
22.5°	1764.9	1794.7	1786.3	1779.9	1795.9
25°	1701.0	1728.6	1723.6	1715.4	1726.4
27.5°	1637.7	1658.1	1648.4	1640.2	1648.4
30°	1588.0	1612.8	1596.4	1588.2	1596.4
32.5°	1533.7	1558.6	1542.2	1531.5	1535.4
35°	1449.5	1471.6	1458.0	1443.9	1443.9
37.5°	1369.8	1384.2	1374.9	1351.1	1345.0
40°	1311.1	1327.6	1313.9	1285.4	1277.2
42.5°	1250.0	1266.6	1250.6	1219.8	1207.1
45°	1161.3	1172.4	1152.8	1118.6	1102.0
47.5°	1069.8	1081.4	1054.5	1016.8	996.9
50°	1008.7	1022.5	989.0	948.9	926.8
52.5°	950.0	959.4	927.9	881.1	861.2
55°	856.1	867.2	836.4	784.9	760.1
57.5°	768.6	779.1	742.6	693.5	674.2
60°	712.0	720.3	683.8	632.5	613.1
62.5°	648.8	657.0	622.8	578.2	558.9
65°	565.1	567.9	539.7	499.8	486.0
67.5°	486.6	486.6	462.8	433.2	422.1
70°	432.3	432.3	415.4	392.5	381.5
72.5°	382.6	380.4	370.2	354.1	345.3
75°	305.2	305.2	310.8	302.2	296.7
77.5°	237.3	232.9	257.1	255.9	253.2
80°	192.1	192.1	223.2	228.8	226.0
82.5°	151.5	155.9	196.1	203.9	201.2
85°	93.2	112.6	155.4	166.7	166.7
87.5°	42.4	76.1	122.1	136.8	137.3
90°	8.5	55.4	101.7	118.7	121.5
92.5°	17.5	42.4	83.6	100.7	105.7
95°	28.3	25.5	59.3	79.2	81.9
97.5°	33.9	16.8	42.9	59.4	62.7
100°	33.9	14.6	33.9	48.2	53.7
102.5°	31.6	12.3	24.9	39.1	42.4
105°	28.3	11.7	14.1	25.6	31.1
107.5°	24.9	8.8	7.9	15.9	18.6
110°	22.6	8.8	5.7	11.4	14.1



TEST NUMBER: P644465

CATALOG NUMBER: CRQ4DP-SR4F0-125D830-FLL-1DUDD-WW

CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	22.6	8.8	5.7	6.8	9.6
115°	19.8	8.7	5.7	5.7	5.7
117.5°	16.4	8.7	5.1	2.3	2.3
120°	14.1	8.6	2.8	0.0	0.0
122.5°	14.1	6.4	2.8	0.0	0.0
125°	11.3	5.8	2.8	0.0	0.0
127.5°	7.9	5.7	2.8	0.0	0.0
130°	5.7	5.7	2.8	0.0	0.0
132.5°	1.1	1.1	0.6	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)