

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: P644269

Luminaire Tested: CRQ4DIP-SR4F0-125D150U835-FLLFLL-1DUDD-WW

Issue Date: 2/20/2023



Test Information

Test Method: LM-79-2019
Report Number: P644269
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-SR4F0-125D150U835-FLLFLL-1DUDD-WW
Description: NEO-RAY CIRQUE SUSPENDED LED LUMINAIRE
DOWNLIGHT - CURVED FROSTED LENS - 1250 LUMENS PER FOOT
UPLIGHT - CURVED FROSTED LENS - 1500 LUMENS PER FOOT
Light Source: 3500K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

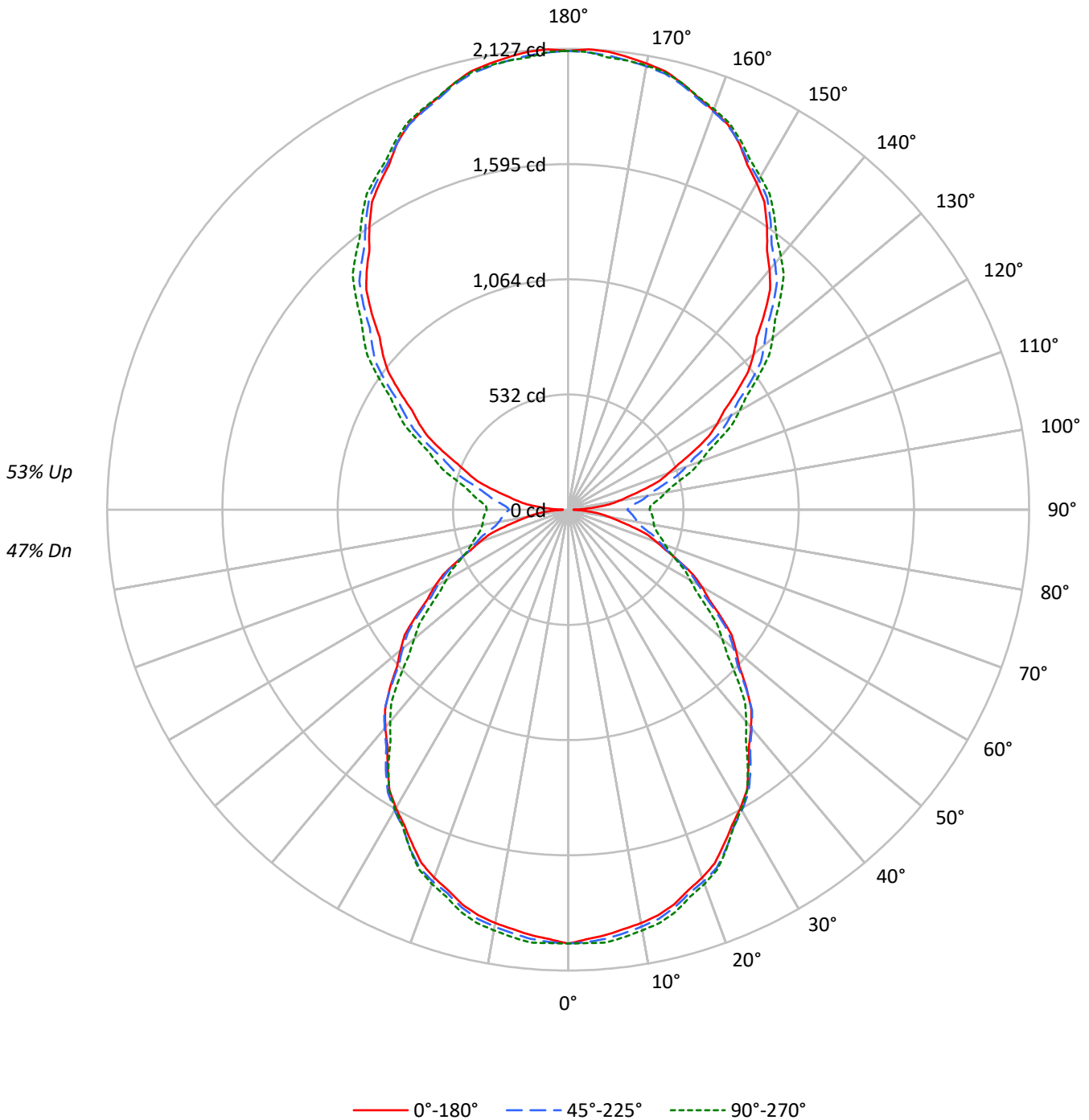
Lumens per Lamp: N/A
Luminaire Lumens: 11416.9 lumens
Efficiency: N/A
Efficacy: 128.9 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.19 / 1.3
Luminous Opening: Rectangular w/ Sides (W: 0.17' x L: 4' x H: 0.33')
CIE Type: General Diffuse

Input Watts (W): 88.6
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	50	30	10	0	
RCR																						
0	106	106	106	106	98	98	98	98	81	81	81	67	67	67	53	53	53	47				47
1	96	92	88	84	88	84	81	77	70	68	65	58	56	54	46	44	43	38				38
2	88	80	74	68	80	74	68	63	61	57	54	50	47	45	40	38	36	31				31
3	80	70	63	57	73	65	58	53	54	49	45	45	41	38	36	33	31	27				27
4	73	62	54	48	67	57	50	45	48	43	39	40	36	33	32	29	27	23				23
5	67	55	47	41	61	51	44	39	43	38	33	36	31	28	29	26	23	20				20
6	62	50	42	36	57	46	39	33	39	33	29	32	28	25	26	23	21	18				18
7	57	45	37	31	52	42	34	29	35	30	26	29	25	22	24	21	18	16				16
8	53	41	33	28	49	38	31	26	32	27	23	27	23	20	22	19	16	14				14
9	49	37	30	25	45	35	28	23	29	24	20	25	21	18	20	17	15	13				13
10	46	34	27	22	42	32	25	21	27	22	18	23	19	16	19	16	13	11				11

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	32329	32329	32329
5°	31717	28545	27658
10°	31302	25426	23892
15°	30843	22770	20899
20°	30137	20428	18279
25°	29195	18219	15929
30°	28272	16144	13826
35°	27019	14225	11867
40°	25850	12416	10060
45°	24500	10674	8395
50°	23069	9084	6886
55°	21556	7633	5668
60°	20111	6305	4700
65°	18332	5169	3969
70°	16621	4246	3461
75°	14532	3613	3166
80°	12142	3226	3025
85°	8852	3109	3041

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 24500 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	189.1	1.7
10°-20°	536.6	4.7
20°-30°	792.5	6.9
30°-40°	912.0	8.0
40°-50°	885.1	7.8
50°-60°	746.7	6.5
60°-70°	562.5	4.9
70°-80°	397.0	3.5
80°-90°	295.6	2.6
90°-100°	314.6	2.8
100°-110°	483.8	4.2
110°-120°	706.2	6.2
120°-130°	911.7	8.0
130°-140°	1030.5	9.0
140°-150°	1018.0	8.9
150°-160°	861.1	7.5
160°-170°	573.3	5.0
170°-180°	200.5	1.8
0°-30°	1518.2	13.3
0°-40°	2430.1	21.3
0°-60°	4062.0	35.6
0°-90°	5317.2	46.6
90°-120°	1504.6	13.2
90°-150°	4464.8	39.1
90°-180°	6100.0	53.4
0°-180°	11416.9	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2002	2002	2002	2002	2002	
5°	1971	2007	1988	1991	2005	187
15°	1886	1918	1900	1906	1920	531
25°	1702	1735	1725	1717	1728	784
35°	1451	1480	1466	1445	1445	908
45°	1162	1180	1156	1120	1103	896
55°	857	877	842	793	776	768
65°	566	582	563	552	549	563
75°	305	323	376	418	430	327
85°	93	165	299	372	392	99
90°	24	131	273	351	376	22
95°	130	173	309	385	401	129
105°	359	373	462	527	539	382
115°	638	662	716	759	770	634
125°	949	981	1026	1061	1070	850
135°	1282	1310	1336	1370	1385	988
145°	1598	1618	1628	1639	1657	998
155°	1866	1877	1868	1871	1882	857
165°	2037	2046	2030	2024	2037	574
175°	2122	2131	2104	2095	2095	201
180°	2118	2118	2118	2118	2118	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2002.3	2002.3	2002.3	2002.3	2002.3
2.5°	1984.2	2013.0	1997.3	2000.1	2002.3
5°	1971.2	2007.2	1988.2	1991.3	2005.1
7.5°	1953.1	1988.0	1971.8	1973.3	1989.3
10°	1937.3	1970.4	1953.7	1957.4	1971.2
12.5°	1916.9	1951.4	1933.8	1939.3	1953.1
15°	1886.4	1918.4	1899.9	1906.5	1920.3
17.5°	1841.1	1873.2	1855.8	1858.4	1872.2
20°	1807.2	1837.0	1826.4	1824.5	1838.3
22.5°	1766.4	1798.5	1790.2	1781.5	1797.6
25°	1702.5	1734.6	1725.2	1716.9	1728.0
27.5°	1639.2	1667.6	1652.6	1641.6	1649.9
30°	1589.4	1618.7	1602.4	1589.6	1597.9
32.5°	1535.1	1566.1	1548.1	1532.9	1536.8
35°	1450.8	1479.5	1466.1	1445.2	1445.2
37.5°	1371.1	1394.2	1378.4	1352.3	1346.2
40°	1312.2	1337.6	1317.3	1286.6	1278.3
42.5°	1251.2	1276.5	1255.8	1220.9	1208.2
45°	1162.4	1180.0	1156.1	1119.6	1103.0
47.5°	1070.7	1090.7	1058.6	1017.7	997.8
50°	1009.6	1030.1	996.6	949.7	927.6
52.5°	950.8	968.6	933.7	883.8	865.6
55°	856.9	876.8	841.6	792.6	776.5
57.5°	769.2	788.6	750.4	714.5	700.0
60°	712.7	729.8	693.4	662.4	649.7
62.5°	649.3	668.2	635.9	617.2	608.0
65°	565.6	581.6	562.7	552.2	549.4
67.5°	487.0	500.2	494.3	501.8	504.4
70°	432.7	445.9	454.0	471.9	476.2
72.5°	382.9	395.7	421.3	447.9	454.4
75°	305.4	323.0	376.3	417.5	429.6
77.5°	237.6	256.9	342.3	395.5	410.8
80°	192.3	223.1	324.6	384.6	401.6
82.5°	151.6	193.8	311.8	379.5	396.5
85°	93.3	165.4	299.4	371.9	391.7
87.5°	45.6	143.9	285.8	361.8	384.3
90°	24.2	130.6	272.7	350.9	375.7
92.5°	63.8	141.1	283.4	359.7	379.6
95°	129.5	172.9	308.9	385.3	401.3
97.5°	193.6	219.1	344.7	415.4	431.1
100°	238.5	256.5	373.4	441.9	456.2
102.5°	286.6	299.4	407.5	472.4	488.0
105°	358.8	373.0	461.5	527.1	539.2
107.5°	439.0	454.6	529.1	590.3	602.3
110°	492.5	513.9	579.0	634.4	648.2



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	551.9	573.2	631.1	682.0	695.8
115°	638.1	662.2	716.1	759.1	770.1
117.5°	728.2	754.8	803.7	843.4	853.9
120°	794.3	819.5	866.2	904.0	912.8
122.5°	853.6	882.0	929.1	967.0	975.7
125°	948.8	980.7	1025.8	1061.4	1070.2
127.5°	1046.6	1078.3	1119.8	1155.9	1167.3
130°	1116.3	1144.9	1180.9	1218.9	1232.0
132.5°	1180.1	1208.7	1241.6	1280.1	1295.0
135°	1281.5	1310.1	1335.5	1369.5	1384.9
137.5°	1379.1	1406.8	1426.3	1453.3	1472.6
140°	1445.6	1469.8	1483.9	1509.0	1526.6
142.5°	1506.8	1531.0	1541.4	1562.9	1580.5
145°	1598.5	1618.3	1627.7	1639.4	1657.0
147.5°	1684.4	1703.7	1707.8	1717.9	1728.9
150°	1740.2	1757.7	1758.1	1762.9	1773.9
152.5°	1792.3	1808.1	1803.1	1806.1	1818.8
155°	1866.1	1877.1	1868.3	1870.8	1881.8
157.5°	1924.5	1935.5	1921.8	1926.1	1934.9
160°	1960.5	1971.5	1956.0	1958.4	1967.2
162.5°	1994.7	2002.1	1988.4	1985.5	1997.8
165°	2036.9	2045.7	2030.2	2023.7	2036.9
167.5°	2072.9	2081.7	2061.2	2054.3	2067.5
170°	2090.9	2099.7	2077.4	2068.7	2081.9
172.5°	2107.1	2115.9	2091.8	2081.2	2090.9
175°	2122.4	2131.2	2104.4	2095.4	2095.4
177.5°	2126.9	2132.1	2112.5	2103.7	2114.3
180°	2117.9	2117.9	2117.9	2117.9	2117.9

(END OF REPORT)