

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: P644258

Luminaire Tested: CRQ4DIP-SR4F0-125D125U835-FLLOOB-1DUDD-WW

Issue Date: 2/20/2023



Test Information

Test Method: LM-79-2019
Report Number: P644258
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2203-563-26, G2-2206-689-14)
Test Lab: INNOVATION CENTER
Issue Date: 2/20/2023
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: CRQ4DIP-SR4F0-125D125U835-FLLOOB-1DUDD-WW
Description: NEO-RAY CIRQUE SUSPENDED LED LUMINAIRE
DOWNLIGHT - CURVED FROSTED LENS - 1250 LUMENS PER FOOT
UPLIGHT - BATWING OPTIC - 1250 LUMENS PER FOOT
Light Source: 3500K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

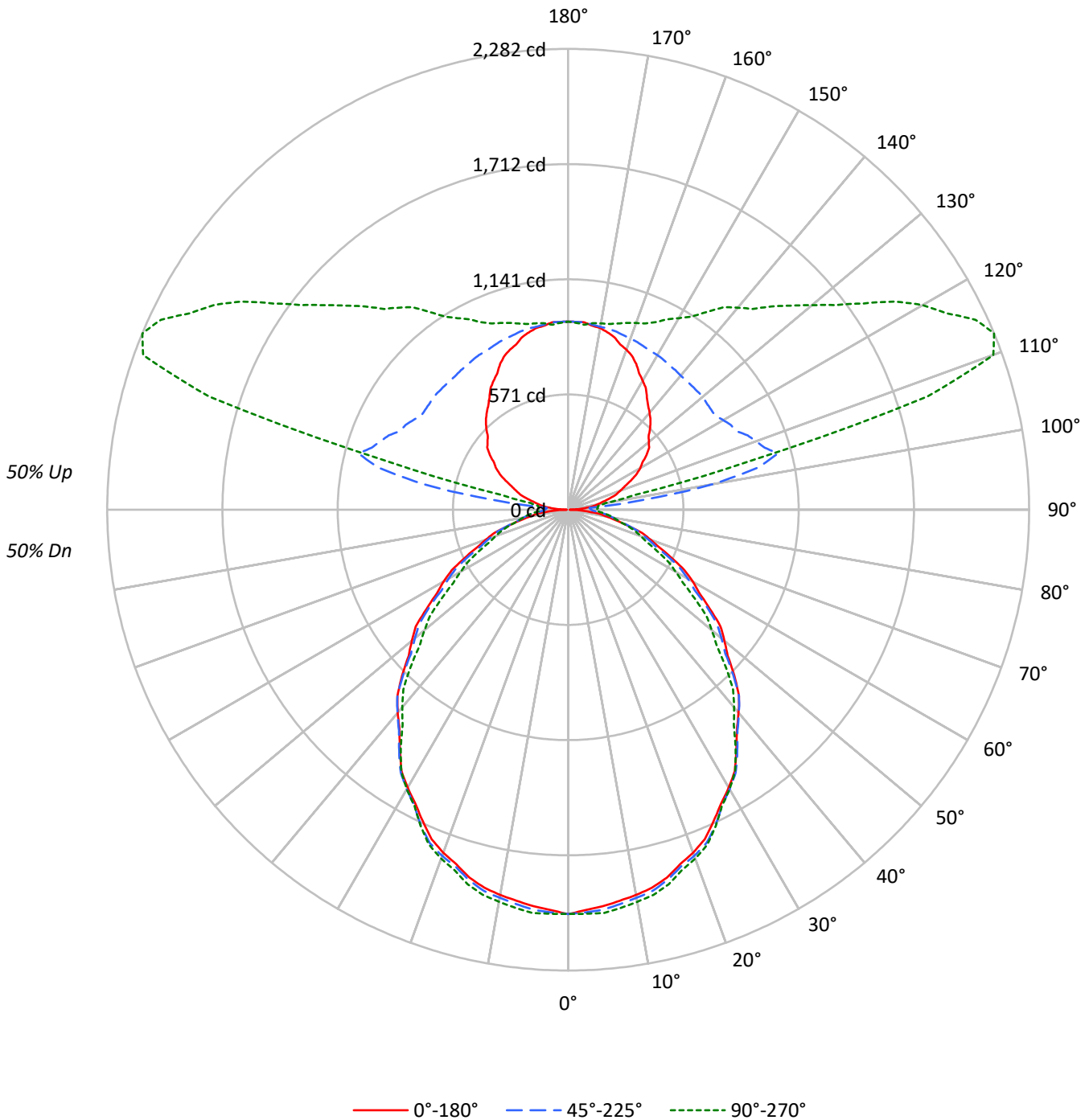
Lumens per Lamp: N/A
Luminaire Lumens: 10165.5 lumens
Efficiency: N/A
Efficacy: 130.0 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.19 / 1.3
Luminous Opening: Rectangular w/ Sides (W: 0.17' x L: 4' x H: 0.33')
CIE Type: General Diffuse

Input Watts (W): 78.2
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	107	107	107	107	99	99	99	99	83	83	83	69	69	69	56	56	56	50				
1	98	93	89	86	90	86	83	80	73	70	68	60	59	57	49	48	47	42				
2	89	81	75	70	82	75	70	65	64	60	56	53	50	48	43	41	40	35				
3	81	72	64	58	75	66	60	55	56	51	47	47	44	41	39	36	34	30				
4	74	63	56	50	68	59	52	46	50	45	41	42	38	35	34	32	29	26				
5	68	57	48	42	63	53	45	40	45	39	35	38	34	30	31	28	26	22				
6	63	51	43	37	58	47	40	35	40	35	31	34	30	27	28	25	23	20				
7	58	46	38	32	54	43	36	31	37	31	27	31	27	24	26	23	20	17				
8	54	42	34	29	50	39	32	27	34	28	24	29	24	21	24	20	18	16				
9	50	38	31	26	46	36	29	24	31	25	22	26	22	19	22	19	16	14				
10	47	35	28	23	43	33	26	22	28	23	19	24	20	17	20	17	15	13				

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	32329	32329	32329
5°	31717	28545	27658
10°	31302	25396	23892
15°	30843	22743	20899
20°	30137	20402	18279
25°	29195	18219	15929
30°	28272	16099	13826
35°	27019	14159	11867
40°	25850	12396	10060
45°	24500	10654	8395
50°	23069	9022	6886
55°	21556	7592	5554
60°	20111	6223	4439
65°	18332	4962	3513
70°	16621	3888	2775
75°	14532	2987	2189
80°	12142	2220	1704
85°	8852	1615	1296

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°	189.0	1.9
10°-20°	536.3	5.3
20°-30°	791.7	7.8
30°-40°	910.2	9.0
40°-50°	882.9	8.7
50°-60°	739.1	7.3
60°-70°	532.5	5.2
70°-80°	325.4	3.2
80°-90°	160.2	1.6
90°-100°	177.0	1.7
100°-110°	838.4	8.2
110°-120°	1115.3	11.0
120°-130°	904.6	8.9
130°-140°	725.3	7.1
140°-150°	571.5	5.6
150°-160°	417.9	4.1
160°-170°	259.6	2.6
170°-180°	88.5	0.9
0°-30°	1517.0	14.9
0°-40°	2427.2	23.9
0°-60°	4049.3	39.8
0°-90°	5067.4	49.8
90°-120°	2130.7	21.0
90°-150°	4332.2	42.6
90°-180°	5098.0	50.1
0°-180°	10165.5	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	1914	1898	1906	1920	531
25°	1702	1730	1725	1717	1728	784
35°	1451	1473	1459	1445	1445	908
45°	1162	1173	1154	1120	1103	896
55°	857	868	837	786	761	768
65°	566	568	540	500	486	563
75°	305	305	311	302	297	327
85°	93	113	156	167	167	99
90°	8	61	114	136	139	12
95°	75	112	106	132	146	76
105°	210	291	1074	1380	927	221
115°	342	400	919	1904	2225	339
125°	474	531	864	1505	1780	421
135°	574	637	867	1240	1423	442
145°	679	736	872	1080	1195	427
155°	796	825	890	979	1025	366
165°	884	896	914	937	954	248
175°	931	937	931	925	919	88
180°	931	931	931	931	931	



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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	1995.5	2000.1	2002.3
5°	1971.2	2007.2	1988.2	1991.3	2005.1
7.5°	1953.1	1986.3	1969.5	1973.3	1989.3
10°	1937.3	1970.4	1951.4	1957.4	1971.2
12.5°	1916.9	1947.9	1933.3	1939.3	1953.1
15°	1886.4	1914.0	1897.7	1906.5	1920.3
17.5°	1841.1	1871.0	1853.6	1858.4	1872.2
20°	1807.2	1834.8	1824.1	1824.5	1838.3
22.5°	1766.4	1796.3	1787.9	1781.5	1797.6
25°	1702.5	1730.2	1725.2	1716.9	1728.0
27.5°	1639.2	1659.6	1649.9	1641.6	1649.9
30°	1589.4	1614.3	1597.9	1589.6	1597.9
32.5°	1535.1	1560.0	1543.6	1532.9	1536.8
35°	1450.8	1472.9	1459.3	1445.2	1445.2
37.5°	1371.1	1385.5	1376.2	1352.3	1346.2
40°	1312.2	1328.8	1315.1	1286.6	1278.3
42.5°	1251.2	1267.8	1251.7	1220.9	1208.2
45°	1162.4	1173.4	1153.9	1119.6	1103.0
47.5°	1070.7	1082.3	1055.5	1017.7	997.8
50°	1009.6	1023.5	989.8	949.7	927.6
52.5°	950.8	960.2	928.8	881.9	862.0
55°	856.9	868.0	837.1	785.7	760.8
57.5°	769.2	779.8	743.2	694.1	674.8
60°	712.7	721.0	684.4	633.1	613.7
62.5°	649.3	657.6	623.3	578.8	559.4
65°	565.6	568.4	540.2	500.3	486.4
67.5°	487.0	487.0	463.2	433.6	422.5
70°	432.7	432.7	415.7	392.9	381.8
72.5°	382.9	380.7	370.5	354.4	345.6
75°	305.4	305.4	311.1	302.5	297.0
77.5°	237.6	233.1	257.4	256.2	253.4
80°	192.3	192.3	223.4	229.0	226.2
82.5°	151.6	156.0	196.3	204.1	201.4
85°	93.3	112.7	155.5	166.9	166.9
87.5°	42.4	77.3	124.5	140.4	141.0
90°	8.5	61.2	113.5	136.4	139.2
92.5°	31.6	62.2	109.5	137.2	146.8
95°	75.1	112.4	106.2	132.2	146.4
97.5°	117.1	183.5	387.3	161.0	150.6
100°	145.2	223.2	724.9	251.6	188.4
102.5°	171.0	253.6	959.5	575.8	336.4
105°	209.8	290.6	1074.0	1379.5	927.0
107.5°	248.6	305.8	1019.8	1986.4	1864.4
110°	274.4	329.3	989.4	2081.9	2239.3



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	302.5	357.4	961.3	2018.9	2281.6
115°	341.9	399.5	919.1	1904.3	2225.0
117.5°	381.8	441.6	908.0	1778.2	2108.0
120°	412.3	469.8	887.0	1682.5	2026.1
122.5°	435.8	495.6	863.6	1602.3	1918.3
125°	473.9	531.4	863.6	1505.3	1780.1
127.5°	504.5	566.4	864.8	1392.8	1664.2
130°	521.0	589.7	869.5	1317.5	1575.2
132.5°	539.9	608.6	867.2	1283.7	1495.5
135°	573.9	636.8	866.6	1239.7	1422.9
137.5°	603.1	670.7	866.6	1191.1	1348.0
140°	626.6	689.5	866.6	1162.7	1305.8
142.5°	650.0	708.4	871.3	1129.7	1263.7
145°	679.3	736.5	872.5	1080.1	1194.6
147.5°	714.4	764.8	879.5	1044.3	1132.5
150°	737.8	783.6	884.2	1020.6	1095.0
152.5°	761.2	802.5	884.2	1001.5	1062.2
155°	796.4	825.0	890.1	978.9	1024.7
157.5°	824.5	852.0	897.1	964.6	997.8
160°	843.2	866.1	901.8	955.1	983.8
162.5°	857.3	880.2	906.5	950.2	969.7
165°	884.2	895.7	913.5	937.3	954.5
167.5°	899.4	909.7	919.3	931.3	941.6
170°	913.5	919.2	919.3	931.2	936.9
172.5°	918.2	928.5	924.0	926.5	932.2
175°	931.1	936.8	931.1	925.1	919.3
177.5°	931.1	935.6	931.1	931.0	926.4
180°	931.1	931.1	931.1	931.1	931.1

(END OF REPORT)