

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: P644281

Luminaire Tested: CRQ4DIP-SR4F0-125D25U835-FLLFLL-1DUDD-WW

Issue Date: 2/20/2023



Test Information

Test Method: LM-79-2019
Report Number: P644281
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-SR4F0-125D25U835-FLLFLL-1DUDD-WW
Description: NEO-RAY CIRQUE SUSPENDED LED LUMINAIRE
DOWNLIGHT - CURVED FROSTED LENS - 1250 LUMENS PER FOOT
UPLIGHT - CURVED FROSTED LENS - 250 LUMENS PER FOOT
Light Source: 3500K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

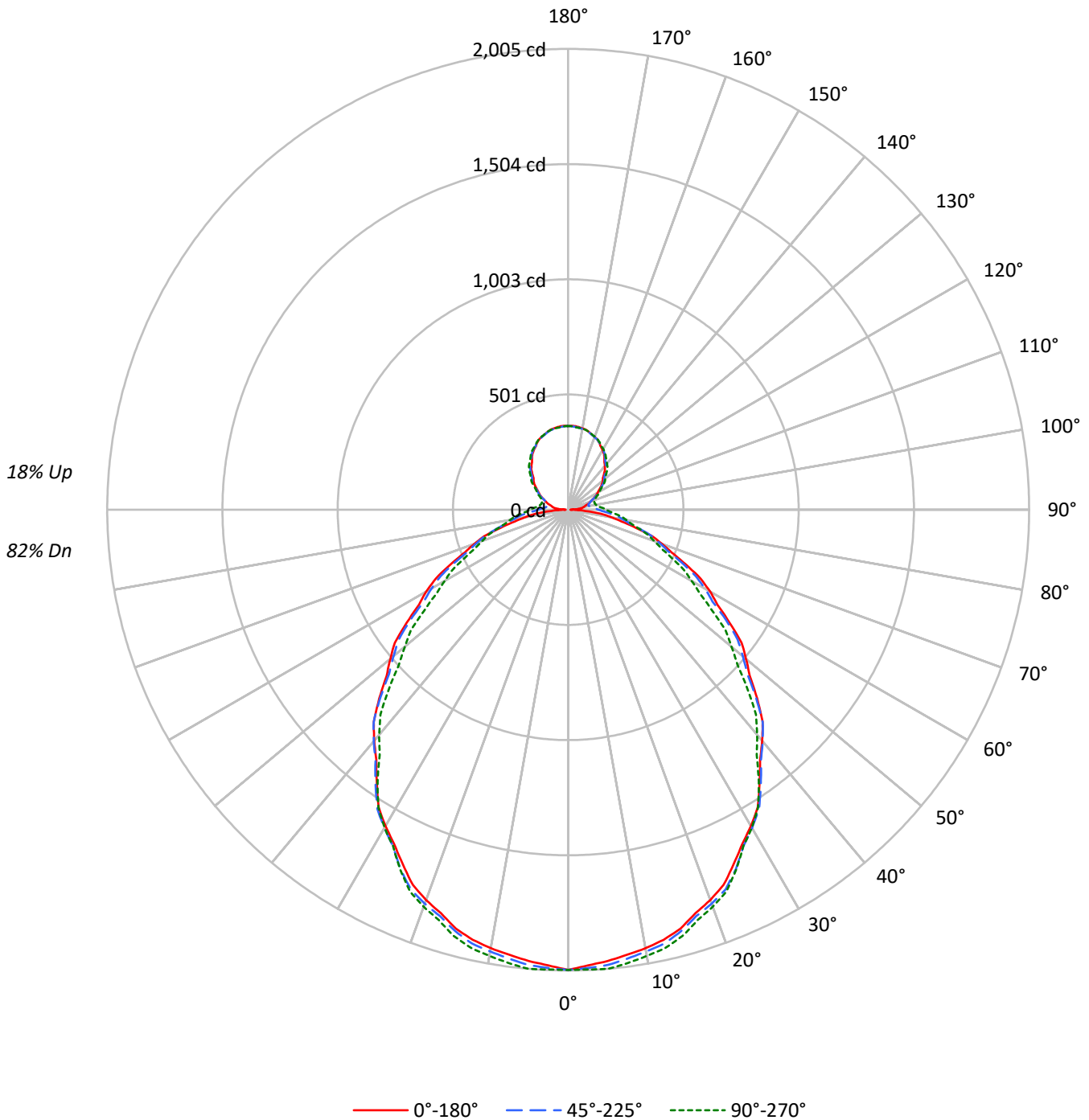
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 6237.1 lumens
Efficiency: N/A
Efficacy: 129.1 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: Semi-Direct

Input Watts (W): 48.3
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

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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	115	115	115	115	110	110	110	110	101	101	101	93	93	93	85	85	85	82
1	104	100	95	92	100	96	92	88	88	85	82	81	79	77	75	73	71	68
2	95	87	81	75	91	84	78	73	77	72	68	71	68	64	66	63	60	57
3	87	77	69	63	83	74	67	61	68	63	58	63	58	54	59	55	51	48
4	80	68	60	53	76	66	58	52	61	55	49	57	51	47	52	48	44	42
5	73	61	53	46	70	59	51	45	55	48	43	51	45	41	47	43	39	36
6	68	55	47	40	65	53	45	39	50	43	38	46	40	36	43	38	34	32
7	63	50	42	36	60	48	41	35	45	38	34	42	36	32	40	34	31	28
8	59	46	37	32	56	44	37	31	41	35	30	39	33	29	36	31	28	26
9	55	42	34	29	52	41	33	28	38	32	27	36	30	26	34	29	25	23
10	51	39	31	26	49	38	30	26	35	29	25	33	28	24	31	26	23	21

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	32329	32329	32329
5°	31717	28545	27658
10°	31302	25401	23892
15°	30843	22748	20899
20°	30137	20407	18279
25°	29195	18219	15929
30°	28272	16107	13826
35°	27019	14170	11867
40°	25850	12400	10060
45°	24500	10657	8395
50°	23069	9033	6886
55°	21556	7599	5573
60°	20111	6237	4484
65°	18332	4997	3592
70°	16621	3950	2893
75°	14532	3094	2357
80°	12142	2393	1932
85°	8852	1872	1596

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	3.0
10°-20°	536.4	8.6
20°-30°	791.8	12.7
30°-40°	910.5	14.6
40°-50°	883.3	14.2
50°-60°	740.4	11.9
60°-70°	537.7	8.6
70°-80°	337.7	5.4
80°-90°	181.7	2.9
90°-100°	105.9	1.7
100°-110°	101.9	1.6
110°-120°	127.9	2.1
120°-130°	159.4	2.6
130°-140°	177.4	2.8
140°-150°	175.0	2.8
150°-160°	148.0	2.4
160°-170°	98.5	1.6
170°-180°	34.5	0.6
0°-30°	1517.2	24.3
0°-40°	2427.7	38.9
0°-60°	4051.5	65.0
0°-90°	5108.6	81.9
90°-120°	335.7	5.4
90°-150°	847.5	13.6
90°-180°	1129.0	18.1
0°-180°	6237.1	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	1915	1898	1906	1920	531
25°	1702	1731	1725	1717	1728	784
35°	1451	1474	1460	1445	1445	908
45°	1162	1175	1154	1120	1103	896
55°	857	870	838	787	764	768
65°	566	571	544	509	497	563
75°	305	308	322	322	320	327
85°	93	122	180	202	206	99
90°	11	68	131	159	165	12
95°	46	51	102	132	137	42
105°	85	74	91	112	118	91
115°	126	121	128	135	137	125
125°	172	173	179	182	184	154
135°	220	225	230	235	238	170
145°	275	278	280	282	285	172
155°	321	323	321	322	323	147
165°	350	352	349	348	350	99
175°	365	366	362	360	360	35
180°	364	364	364	364	364	

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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	1995.8	2000.1	2002.3
5°	1971.2	2007.2	1988.2	1991.3	2005.1
7.5°	1953.1	1986.6	1969.9	1973.3	1989.3
10°	1937.3	1970.4	1951.8	1957.4	1971.2
12.5°	1916.9	1948.5	1933.4	1939.3	1953.1
15°	1886.4	1914.8	1898.1	1906.5	1920.3
17.5°	1841.1	1871.4	1853.9	1858.4	1872.2
20°	1807.2	1835.2	1824.5	1824.5	1838.3
22.5°	1766.4	1796.7	1788.3	1781.5	1797.6
25°	1702.5	1730.9	1725.2	1716.9	1728.0
27.5°	1639.2	1661.0	1650.4	1641.6	1649.9
30°	1589.4	1615.0	1598.7	1589.6	1597.9
32.5°	1535.1	1561.1	1544.4	1532.9	1536.8
35°	1450.8	1474.1	1460.5	1445.2	1445.2
37.5°	1371.1	1387.0	1376.6	1352.3	1346.2
40°	1312.2	1330.4	1315.5	1286.6	1278.3
42.5°	1251.2	1269.3	1252.4	1220.9	1208.2
45°	1162.4	1174.6	1154.3	1119.6	1103.0
47.5°	1070.7	1083.8	1056.0	1017.7	997.8
50°	1009.6	1024.6	991.0	949.7	927.6
52.5°	950.8	961.7	929.6	882.2	862.6
55°	856.9	869.5	837.9	786.8	763.5
57.5°	769.2	781.3	744.5	697.6	679.1
60°	712.7	722.5	686.0	638.1	619.9
62.5°	649.3	659.4	625.5	585.4	567.7
65°	565.6	570.7	544.0	509.2	497.3
67.5°	487.0	489.3	468.6	445.3	436.6
70°	432.7	435.0	422.3	406.4	398.0
72.5°	382.9	383.3	379.2	370.5	364.3
75°	305.4	308.5	322.3	322.3	319.8
77.5°	237.6	237.2	272.0	280.1	280.4
80°	192.3	197.6	240.8	255.8	256.4
82.5°	151.6	162.5	216.1	234.3	234.9
85°	93.3	121.8	180.3	202.1	205.5
87.5°	43.0	87.8	150.3	175.5	179.9
90°	11.2	68.4	131.2	158.7	165.3
92.5°	25.5	59.4	118.0	145.3	152.8
95°	45.7	50.8	102.3	131.9	136.9
97.5°	61.4	51.6	94.8	120.6	126.1
100°	69.1	56.2	92.3	115.9	122.9
102.5°	75.5	61.7	90.7	113.6	119.0
105°	85.1	73.8	91.0	111.8	118.4
107.5°	96.1	85.5	97.5	114.6	119.0
110°	103.4	95.6	104.2	118.5	123.1



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	113.6	105.8	113.2	122.9	127.5
115°	126.1	121.0	127.8	135.1	137.0
117.5°	138.7	136.9	142.3	146.8	148.6
120°	148.2	148.0	151.2	155.4	156.9
122.5°	158.4	156.9	162.0	166.2	167.7
125°	172.4	173.3	178.6	182.4	183.9
127.5°	186.4	190.0	194.8	198.7	200.6
130°	196.5	201.4	205.3	209.5	211.7
132.5°	203.8	208.7	213.9	220.0	222.6
135°	220.2	225.2	229.5	235.4	238.0
137.5°	237.0	241.8	245.1	249.8	253.1
140°	248.5	252.6	255.0	259.3	262.4
142.5°	259.0	263.1	264.9	268.6	271.6
145°	274.7	278.1	279.8	281.8	284.8
147.5°	289.5	292.8	293.5	295.3	297.1
150°	299.1	302.1	302.2	303.0	304.9
152.5°	308.0	310.8	309.9	310.4	312.6
155°	320.7	322.6	321.1	321.5	323.4
157.5°	330.8	332.6	330.3	331.0	332.5
160°	336.9	338.8	336.2	336.6	338.1
162.5°	342.8	344.1	341.7	341.2	343.4
165°	350.1	351.6	348.9	347.8	350.1
167.5°	356.3	357.8	354.3	353.1	355.3
170°	359.4	360.9	357.0	355.5	357.8
172.5°	362.1	363.6	359.5	357.7	359.4
175°	364.8	366.3	361.7	360.1	360.1
177.5°	365.5	366.4	363.1	361.6	363.4
180°	364.0	364.0	364.0	364.0	364.0

(END OF REPORT)