

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: P644282

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

Issue Date: 2/20/2023



Test Information

Test Method: LM-79-2019
Report Number: P644282
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-SR4F0-125D25U835-FLLOOB-1DUDD-WW
Description: NEO-RAY CIRQUE SUSPENDED LED LUMINAIRE
DOWNLIGHT - CURVED FROSTED LENS - 1250 LUMENS PER FOOT
UPLIGHT - BATWING OPTIC - 250 LUMENS PER FOOT
Light Source: 3500K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

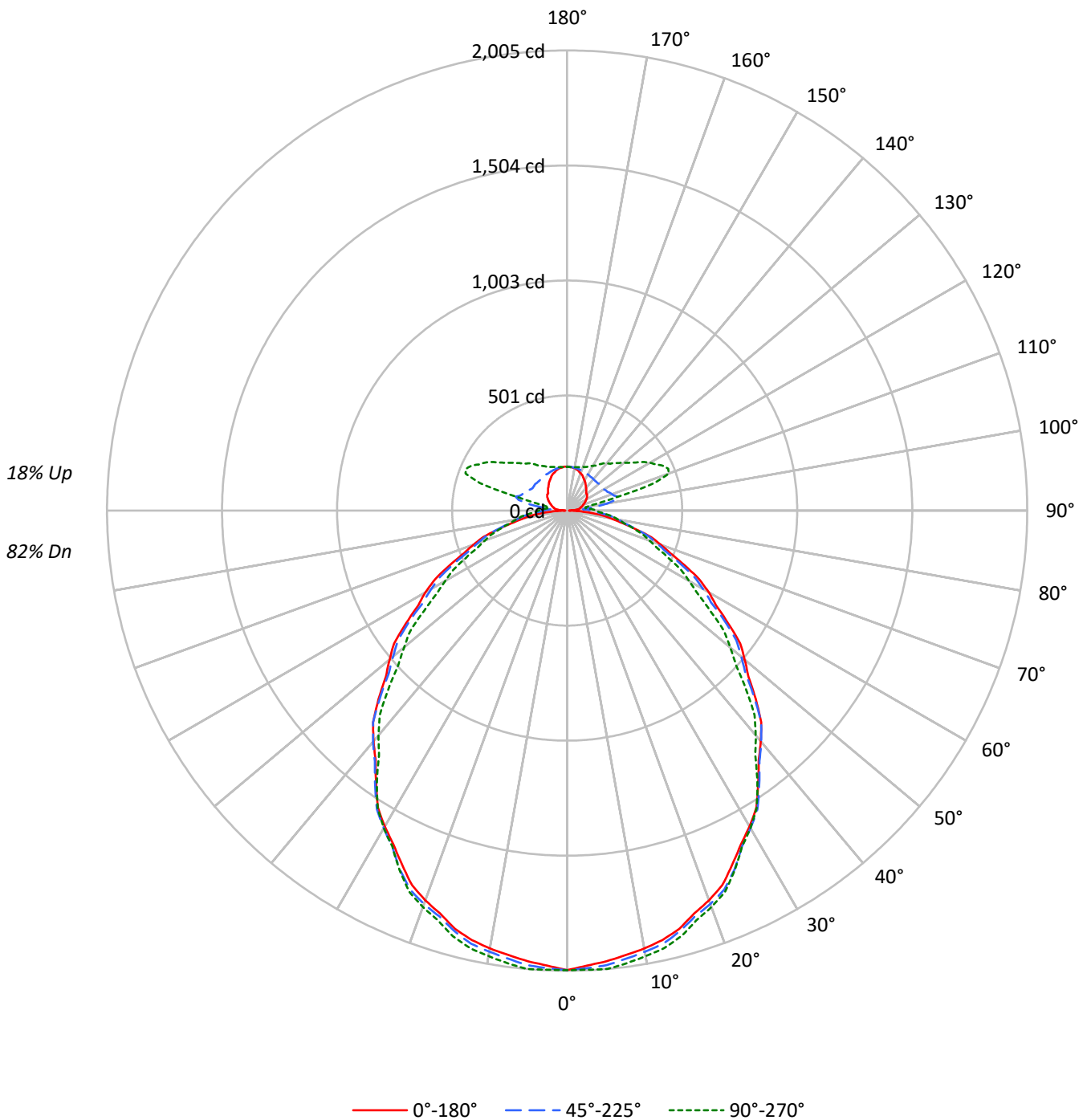
Lumens per Lamp: N/A
Luminaire Lumens: 6190.2 lumens
Efficiency: N/A
Efficacy: 128.2 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.19 / 1.3
Luminous Opening: Rectangular w/ Sides (W: 0.17' x L: 4' x H: 0.33')
CIE Type: Semi-Direct

Input Watts (W): 48.3
Input Voltage (V): 120
Input Current (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										
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	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	105	100	96	92	100	96	92	89	88	85	83	81	79	77	75	73	72	68																				
2	95	87	81	75	91	84	78	73	78	73	69	72	68	64	66	63	60	57																				
3	87	77	69	63	83	74	67	61	69	63	58	64	59	55	59	55	52	49																				
4	80	69	60	54	76	66	58	52	61	55	50	57	51	47	53	48	45	42																				
5	74	61	53	46	70	59	51	45	55	48	43	51	46	41	48	43	39	37																				
6	68	55	47	41	65	53	45	40	50	43	38	46	41	36	43	38	35	32																				
7	63	50	42	36	60	49	41	35	45	39	34	42	37	32	40	35	31	29																				
8	59	46	38	32	56	44	37	31	42	35	30	39	33	29	37	32	28	26																				
9	55	42	34	29	53	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	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	3.1
10°-20°	536.3	8.7
20°-30°	791.7	12.8
30°-40°	910.2	14.7
40°-50°	882.9	14.3
50°-60°	739.1	11.9
60°-70°	532.5	8.6
70°-80°	325.4	5.3
80°-90°	158.5	2.6
90°-100°	86.1	1.4
100°-110°	190.3	3.1
110°-120°	235.5	3.8
120°-130°	188.5	3.0
130°-140°	149.4	2.4
140°-150°	117.4	1.9
150°-160°	85.9	1.4
160°-170°	53.3	0.9
170°-180°	18.2	0.3
0°-30°	1517.0	24.5
0°-40°	2427.2	39.2
0°-60°	4049.3	65.4
0°-90°	5065.7	81.8
90°-120°	511.8	8.3
90°-150°	967.1	15.6
90°-180°	1124.0	18.2
0°-180°	6190.2	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	57	104	122	125	11
95°	38	43	69	90	95	35
105°	66	69	232	304	215	69
115°	86	89	193	396	462	85
125°	106	114	180	309	366	94
135°	118	131	178	255	292	92
145°	140	151	179	222	245	88
155°	164	170	183	201	211	75
165°	182	184	188	193	196	51
175°	191	192	191	190	189	18
180°	191	191	191	191	191	



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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	76.4	122.7	137.6	138.2
90°	8.5	56.7	104.2	122.5	125.2
92.5°	20.4	46.5	89.0	108.3	114.2
95°	37.9	43.4	69.0	90.1	95.3
97.5°	51.0	51.1	113.7	80.3	80.8
100°	56.8	57.4	175.9	90.0	81.4
102.5°	60.3	61.9	216.9	149.4	102.8
105°	65.6	69.0	231.9	303.8	215.2
107.5°	70.8	69.9	215.8	420.8	397.9
110°	74.4	74.7	207.8	436.8	471.3



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	80.1	80.4	202.0	420.3	476.4
115°	86.0	89.0	193.4	395.8	461.7
117.5°	91.5	97.6	190.6	367.2	434.9
120°	96.0	103.4	184.5	345.7	416.3
122.5°	100.8	106.9	179.7	329.2	394.2
125°	106.4	113.8	179.7	309.3	365.8
127.5°	109.9	120.9	179.9	286.2	341.9
130°	111.5	125.7	180.9	270.7	323.7
132.5°	111.8	125.9	178.6	263.8	307.3
135°	117.9	130.9	178.1	254.7	292.4
137.5°	123.9	137.8	178.1	244.7	277.0
140°	128.7	141.7	178.1	238.9	268.3
142.5°	133.6	145.6	179.0	232.1	259.6
145°	139.6	151.3	179.3	221.9	245.4
147.5°	146.8	157.1	180.7	214.6	232.7
150°	151.6	161.0	181.7	209.7	225.0
152.5°	156.4	164.9	181.7	205.8	218.3
155°	163.6	169.5	182.9	201.1	210.6
157.5°	169.4	175.1	184.3	198.2	205.0
160°	173.3	178.0	185.3	196.2	202.1
162.5°	176.1	180.8	186.3	195.2	199.2
165°	181.7	184.0	187.7	192.6	196.1
167.5°	184.8	186.9	188.9	191.4	193.5
170°	187.7	188.9	188.9	191.3	192.5
172.5°	188.7	190.8	189.9	190.4	191.5
175°	191.3	192.5	191.3	190.1	188.9
177.5°	191.3	192.2	191.3	191.3	190.3
180°	191.3	191.3	191.3	191.3	191.3

(END OF REPORT)