

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: P644283

Luminaire Tested: CRQ4DIP-SR4F0-125D25U840-FLLFLL-1DUDD-WW

Issue Date: 2/20/2023



Test Information

Test Method: LM-79-2019
Report Number: P644283
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-SR4F0-125D25U840-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: 4000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

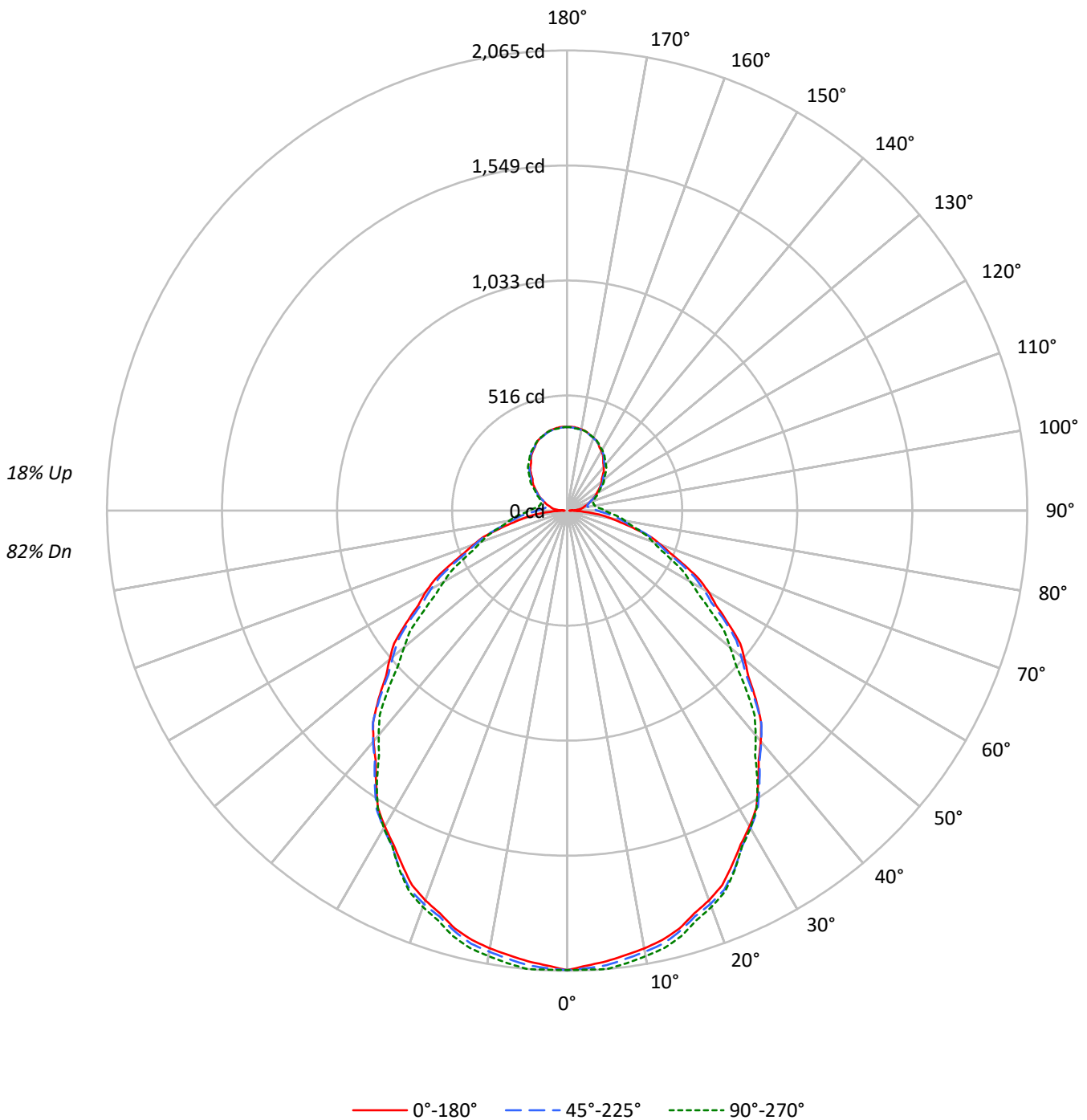
Lumens per Lamp: N/A
Luminaire Lumens: 6423.0 lumens
Efficiency: N/A
Efficacy: 133.0 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.19 / 1.3
Luminous Opening: Rectangular w/ Sides (W: 0.17' x L: 4' x H: 0.33')
CIE Type: Semi-Direct

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										
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	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°	33293	33293	33293
5°	32663	29395	28483
10°	32234	26159	24605
15°	31762	23425	21521
20°	31034	21015	18824
25°	30067	18762	16404
30°	29115	16586	14238
35°	27826	14592	12221
40°	26622	12769	10360
45°	25229	10975	8646
50°	23756	9302	7092
55°	22200	7826	5739
60°	20710	6423	4618
65°	18880	5147	3699
70°	17117	4068	2979
75°	14965	3186	2427
80°	12502	2465	1989
85°	9118	1929	1643

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 25229 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	194.7	3.0
10°-20°	552.3	8.6
20°-30°	815.4	12.7
30°-40°	937.7	14.6
40°-50°	909.7	14.2
50°-60°	762.5	11.9
60°-70°	553.7	8.6
70°-80°	347.8	5.4
80°-90°	187.1	2.9
90°-100°	109.0	1.7
100°-110°	105.0	1.6
110°-120°	131.8	2.1
120°-130°	164.2	2.6
130°-140°	182.7	2.8
140°-150°	180.2	2.8
150°-160°	152.4	2.4
160°-170°	101.5	1.6
170°-180°	35.5	0.6
0°-30°	1562.4	24.3
0°-40°	2500.1	38.9
0°-60°	4172.2	65.0
0°-90°	5260.9	81.9
90°-120°	345.7	5.4
90°-150°	872.8	13.6
90°-180°	1162.0	18.1
0°-180°	6423.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2062	2062	2062	2062	2062	
5°	2030	2067	2047	2051	2065	193
15°	1943	1972	1955	1963	1978	546
25°	1753	1782	1777	1768	1780	808
35°	1494	1518	1504	1488	1488	936
45°	1197	1210	1189	1153	1136	923
55°	882	895	863	810	786	791
65°	582	588	560	524	512	579
75°	314	318	332	332	329	336
85°	96	125	186	208	212	102
90°	12	70	135	164	170	13
95°	47	52	105	136	141	43
105°	88	76	94	115	122	93
115°	130	125	132	139	141	129
125°	178	178	184	188	189	159
135°	227	232	236	242	245	176
145°	283	286	288	290	293	177
155°	330	332	331	331	333	152
165°	360	362	359	358	360	102
175°	376	377	372	371	371	36
180°	375	375	375	375	375	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2062.0	2062.0	2062.0	2062.0	2062.0
2.5°	2043.4	2073.0	2055.3	2059.7	2062.0
5°	2030.0	2067.0	2047.4	2050.7	2064.9
7.5°	2011.3	2045.8	2028.6	2032.1	2048.6
10°	1995.0	2029.2	2010.0	2015.7	2030.0
12.5°	1974.0	2006.6	1991.0	1997.1	2011.3
15°	1942.6	1971.9	1954.6	1963.3	1977.5
17.5°	1896.0	1927.1	1909.2	1913.8	1928.0
20°	1861.0	1889.9	1878.9	1878.8	1893.1
22.5°	1819.1	1850.3	1841.6	1834.6	1851.1
25°	1753.3	1782.5	1776.6	1768.1	1779.5
27.5°	1688.0	1710.5	1699.6	1690.6	1699.1
30°	1636.8	1663.2	1646.3	1637.0	1645.5
32.5°	1580.9	1607.6	1590.4	1578.6	1582.6
35°	1494.1	1518.0	1504.0	1488.3	1488.3
37.5°	1411.9	1428.3	1417.6	1392.6	1386.3
40°	1351.4	1370.0	1354.7	1325.0	1316.4
42.5°	1288.5	1307.1	1289.8	1257.3	1244.2
45°	1197.0	1209.6	1188.7	1152.9	1135.9
47.5°	1102.6	1116.1	1087.5	1048.0	1027.5
50°	1039.7	1055.1	1020.5	978.1	955.3
52.5°	979.2	990.3	957.3	908.5	888.3
55°	882.5	895.4	862.9	810.3	786.2
57.5°	792.2	804.6	766.7	718.4	699.4
60°	733.9	744.0	706.4	657.1	638.4
62.5°	668.7	679.1	644.1	602.8	584.7
65°	582.5	587.7	560.3	524.4	512.1
67.5°	501.5	503.9	482.5	458.6	449.6
70°	445.6	447.9	434.9	418.6	409.9
72.5°	394.3	394.7	390.5	381.5	375.2
75°	314.5	317.7	331.9	331.9	329.3
77.5°	244.6	244.3	280.1	288.5	288.8
80°	198.0	203.5	248.0	263.4	264.0
82.5°	156.1	167.4	222.6	241.3	241.9
85°	96.1	125.4	185.7	208.1	211.6
87.5°	44.2	90.4	154.8	180.8	185.2
90°	11.5	70.4	135.1	163.5	170.2
92.5°	26.3	61.1	121.5	149.6	157.4
95°	47.0	52.4	105.3	135.8	141.0
97.5°	63.2	53.1	97.7	124.2	129.8
100°	71.2	57.8	95.0	119.3	126.6
102.5°	77.7	63.5	93.4	117.0	122.6
105°	87.6	76.0	93.7	115.1	122.0
107.5°	98.9	88.0	100.4	118.0	122.5
110°	106.5	98.5	107.3	122.0	126.8

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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	117.0	109.0	116.5	126.6	131.3
115°	129.8	124.6	131.6	139.2	141.1
117.5°	142.9	141.0	146.6	151.2	153.1
120°	152.6	152.4	155.7	160.0	161.6
122.5°	163.1	161.6	166.9	171.1	172.7
125°	177.6	178.5	184.0	187.9	189.4
127.5°	192.0	195.7	200.6	204.6	206.6
130°	202.4	207.5	211.4	215.7	218.1
132.5°	209.8	214.9	220.2	226.6	229.2
135°	226.8	231.9	236.4	242.4	245.1
137.5°	244.1	249.0	252.4	257.2	260.6
140°	255.9	260.1	262.6	267.1	270.2
142.5°	266.7	271.0	272.8	276.6	279.7
145°	282.9	286.4	288.1	290.2	293.3
147.5°	298.1	301.5	302.3	304.1	306.0
150°	308.0	311.1	311.2	312.0	314.0
152.5°	317.2	320.0	319.1	319.7	321.9
155°	330.3	332.2	330.7	331.1	333.1
157.5°	340.6	342.6	340.1	340.9	342.4
160°	347.0	348.9	346.2	346.6	348.2
162.5°	353.0	354.4	351.9	351.4	353.6
165°	360.5	362.1	359.3	358.2	360.5
167.5°	366.9	368.4	364.8	363.6	365.9
170°	370.1	371.6	367.7	366.1	368.5
172.5°	372.9	374.5	370.2	368.4	370.1
175°	375.6	377.2	372.5	370.9	370.9
177.5°	376.4	377.4	373.9	372.3	374.2
180°	374.8	374.8	374.8	374.8	374.8

(END OF REPORT)