

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: P644261

Luminaire Tested: CRQ4DIP-SR4F0-125D125U930-FLLFLL-1DUDD-WW

Issue Date: 2/20/2023



Test Information

Test Method: LM-79-2019
Report Number: P644261
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-SR4F0-125D125U930-FLLFLL-1DUDD-WW
Description: NEO-RAY CIRQUE SUSPENDED LED LUMINAIRE
DOWNLIGHT - CURVED FROSTED LENS - 1250 LUMENS PER FOOT
UPLIGHT - CURVED FROSTED LENS - 1250 LUMENS PER FOOT
Light Source: 3000K CCT, 90 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

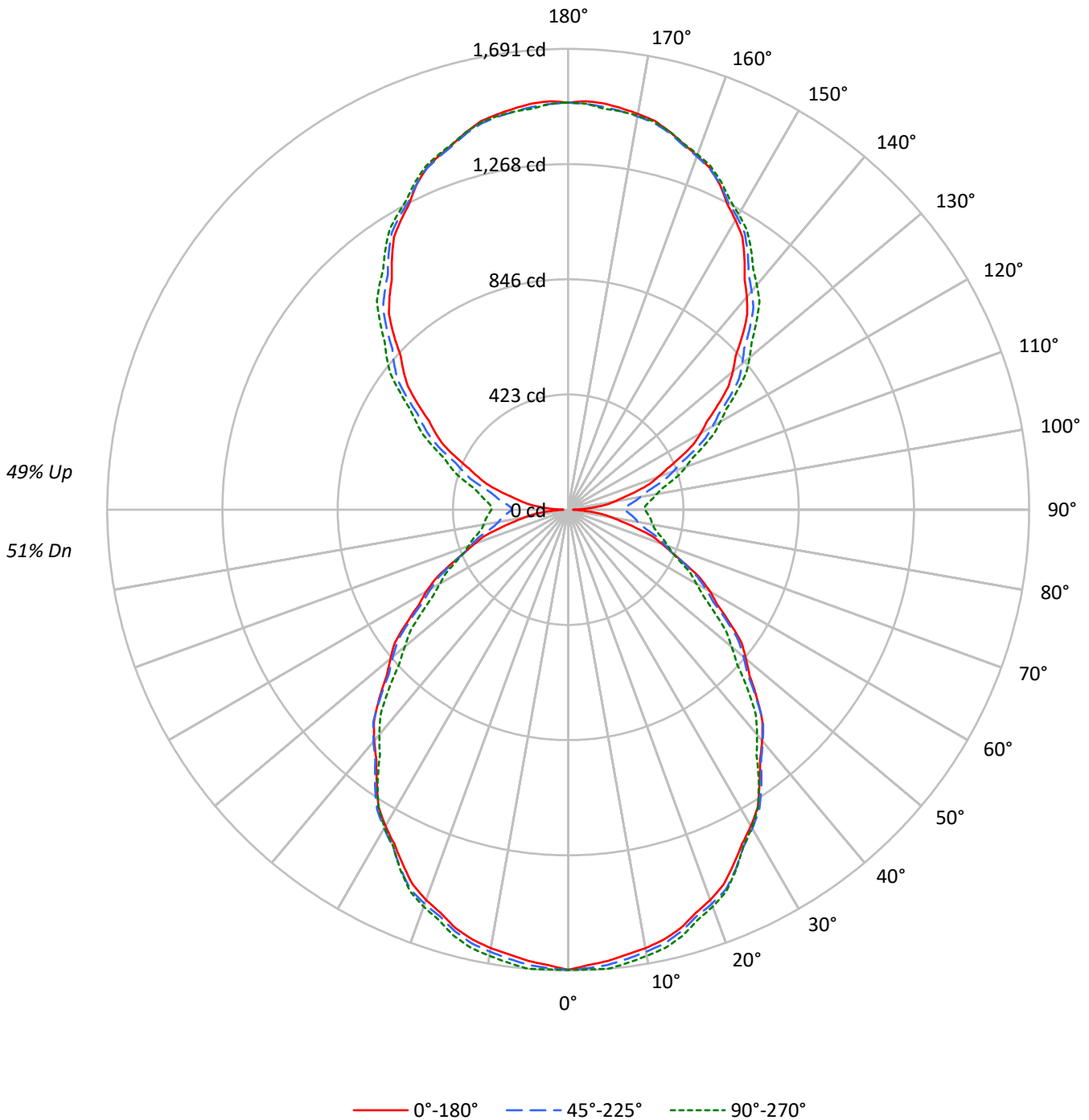
Lumens per Lamp: N/A
Luminaire Lumens: 8764.0 lumens
Efficiency: N/A
Efficacy: 112.1 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.19 / 1.3
Luminous Opening: Rectangular w/ Sides (W: 0.17' x L: 4' x H: 0.33')
CIE Type: General Diffuse

Input Watts (W): 78.2
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	50	30	10	0	
RCR																						
0	107	107	107	107	99	99	99	99	84	84	84	70	70	70	57	57	57	51				
1	97	93	89	85	90	86	82	79	72	70	67	60	58	57	49	48	47	41				
2	88	81	74	69	81	75	69	64	63	59	56	53	50	47	43	41	39	34				
3	81	71	64	58	74	66	59	54	56	51	47	47	43	40	38	36	33	29				
4	74	63	55	49	68	58	51	46	50	44	40	42	38	34	34	31	29	25				
5	68	56	48	42	62	52	45	39	45	39	34	37	33	30	31	28	25	22				
6	63	50	42	36	58	47	40	34	40	34	30	34	29	26	28	25	22	19				
7	58	45	37	32	53	42	35	30	36	31	27	31	26	23	26	22	20	17				
8	54	41	34	28	49	39	32	27	33	28	24	28	24	21	24	20	18	15				
9	50	38	30	25	46	35	28	24	31	25	21	26	22	19	22	18	16	14				
10	47	35	27	23	43	32	26	21	28	23	19	24	20	17	20	17	15	13				

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	27259	27259	27259
5°	26744	24068	23321
10°	26393	21435	20146
15°	26007	19196	17622
20°	25411	17221	15413
25°	24619	15361	13431
30°	23839	13606	11658
35°	22782	11984	10006
40°	21797	10466	8483
45°	20658	8997	7078
50°	19452	7651	5807
55°	18175	6430	4764
60°	16957	5304	3926
65°	15457	4329	3284
70°	14017	3531	2824
75°	12253	2960	2535
80°	10241	2581	2369
85°	7467	2416	2324

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 20658 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	159.4	1.8
10°-20°	452.4	5.2
20°-30°	668.1	7.6
30°-40°	768.7	8.8
40°-50°	746.0	8.5
50°-60°	628.6	7.2
60°-70°	470.1	5.4
70°-80°	324.9	3.7
80°-90°	230.3	2.6
90°-100°	230.5	2.6
100°-110°	344.3	3.9
110°-120°	499.2	5.7
120°-130°	643.5	7.3
130°-140°	726.8	8.3
140°-150°	718.0	8.2
150°-160°	607.3	6.9
160°-170°	404.4	4.6
170°-180°	141.4	1.6
0°-30°	1279.9	14.6
0°-40°	2048.7	23.4
0°-60°	3423.3	39.1
0°-90°	4448.7	50.8
90°-120°	1074.0	12.3
90°-150°	3162.3	36.1
90°-180°	4315.0	49.2
0°-180°	8764.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1688	1688	1688	1688	1688	
5°	1662	1692	1676	1679	1691	158
15°	1591	1617	1602	1608	1619	447
25°	1436	1462	1455	1448	1457	661
35°	1223	1247	1235	1219	1219	766
45°	980	994	974	944	930	755
55°	722	738	709	667	653	648
65°	477	489	471	458	455	474
75°	258	270	308	336	344	275
85°	79	132	233	285	299	83
90°	18	100	206	264	282	17
95°	95	125	226	283	294	94
105°	257	265	328	375	385	274
115°	453	468	506	536	544	450
125°	671	692	724	749	755	601
135°	904	924	942	966	977	697
145°	1127	1141	1148	1156	1169	704
155°	1316	1324	1318	1320	1327	604
165°	1437	1443	1432	1427	1437	405
175°	1497	1503	1484	1478	1478	142
180°	1494	1494	1494	1494	1494	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1688.3	1688.3	1688.3	1688.3	1688.3
2.5°	1673.1	1697.3	1683.9	1686.5	1688.3
5°	1662.1	1692.4	1676.4	1679.1	1690.7
7.5°	1646.8	1676.1	1662.3	1663.8	1677.4
10°	1633.5	1661.5	1647.0	1650.4	1662.1
12.5°	1616.3	1644.9	1630.5	1635.2	1646.8
15°	1590.6	1617.0	1601.7	1607.5	1619.2
17.5°	1552.4	1579.1	1564.5	1567.0	1578.6
20°	1523.8	1548.7	1539.7	1538.4	1550.0
22.5°	1489.5	1516.2	1509.2	1502.2	1515.7
25°	1435.6	1462.0	1454.6	1447.7	1457.0
27.5°	1382.1	1405.0	1393.1	1384.2	1391.2
30°	1340.2	1364.3	1350.5	1340.3	1347.3
32.5°	1294.4	1319.7	1304.7	1292.6	1295.8
35°	1223.3	1246.6	1235.2	1218.6	1218.6
37.5°	1156.1	1174.4	1162.0	1140.2	1135.1
40°	1106.5	1126.7	1110.4	1084.9	1077.9
42.5°	1055.0	1075.2	1058.3	1029.4	1018.7
45°	980.1	994.1	974.5	944.0	930.0
47.5°	902.8	918.5	892.2	858.1	841.3
50°	851.3	867.6	839.4	800.8	782.2
52.5°	801.7	815.5	786.6	744.9	729.4
55°	722.5	738.1	709.0	667.4	652.6
57.5°	648.6	663.7	631.8	599.6	586.7
60°	600.9	614.1	583.4	554.5	542.8
62.5°	547.5	562.0	534.5	515.1	505.9
65°	476.9	488.6	471.3	458.5	454.6
67.5°	410.6	419.9	412.5	413.7	414.0
70°	364.9	374.2	377.5	387.0	388.5
72.5°	322.9	331.6	348.2	364.8	368.2
75°	257.5	269.9	308.3	336.2	343.9
77.5°	200.3	213.3	276.9	314.3	324.7
80°	162.2	183.9	259.7	302.8	314.5
82.5°	127.8	158.2	247.0	295.8	307.4
85°	78.7	132.2	232.6	285.3	299.3
87.5°	38.0	112.0	218.5	274.0	290.0
90°	18.3	99.8	206.4	263.9	281.7
92.5°	47.4	105.3	211.4	267.6	282.3
95°	95.2	125.4	226.1	282.7	294.3
97.5°	141.2	156.8	249.0	301.2	312.7
100°	172.9	182.9	268.1	318.3	329.1
102.5°	206.5	212.8	290.9	338.6	350.1
105°	256.9	264.7	327.5	375.3	384.6
107.5°	313.1	321.9	374.2	418.5	427.4
110°	350.5	363.6	409.1	449.0	459.1

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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	392.3	405.5	445.9	482.0	492.1
115°	452.8	468.2	505.8	536.1	543.9
117.5°	515.9	533.5	567.5	595.1	602.6
120°	562.2	579.2	611.3	637.6	643.8
122.5°	604.0	622.9	655.7	682.0	688.2
125°	670.8	692.5	723.9	748.6	754.8
127.5°	739.3	761.3	790.1	815.2	823.3
130°	788.1	808.2	833.3	859.6	869.0
132.5°	832.5	852.6	875.8	902.8	913.3
135°	903.8	924.0	941.9	965.9	976.8
137.5°	972.7	992.2	1006.0	1025.0	1038.6
140°	1019.6	1036.6	1046.5	1064.3	1076.7
142.5°	1062.7	1079.8	1087.1	1102.3	1114.7
145°	1127.4	1141.4	1148.0	1156.2	1168.6
147.5°	1188.0	1201.6	1204.5	1211.6	1219.4
150°	1227.3	1239.7	1240.0	1243.3	1251.1
152.5°	1264.1	1275.3	1271.7	1273.8	1282.8
155°	1316.1	1323.9	1317.7	1319.5	1327.2
157.5°	1357.3	1365.1	1355.4	1358.4	1364.6
160°	1382.7	1390.5	1379.5	1381.3	1387.5
162.5°	1406.8	1412.1	1402.4	1400.4	1409.0
165°	1436.6	1442.8	1431.9	1427.3	1436.6
167.5°	1462.0	1468.2	1453.7	1448.9	1458.2
170°	1474.7	1480.9	1465.2	1459.0	1468.3
172.5°	1486.1	1492.3	1475.3	1467.9	1474.7
175°	1496.9	1503.1	1484.2	1477.9	1477.9
177.5°	1500.1	1503.8	1489.9	1483.7	1491.2
180°	1493.7	1493.7	1493.7	1493.7	1493.7

(END OF REPORT)