

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: P644263

Luminaire Tested: CRQ4DIP-SR4F0-125D125U935-FLLFLL-1DUDD-WW

Issue Date: 2/20/2023



Test Information

Test Method: LM-79-2019
Report Number: P644263
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-SR4F0-125D125U935-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: 3500K CCT, 90 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

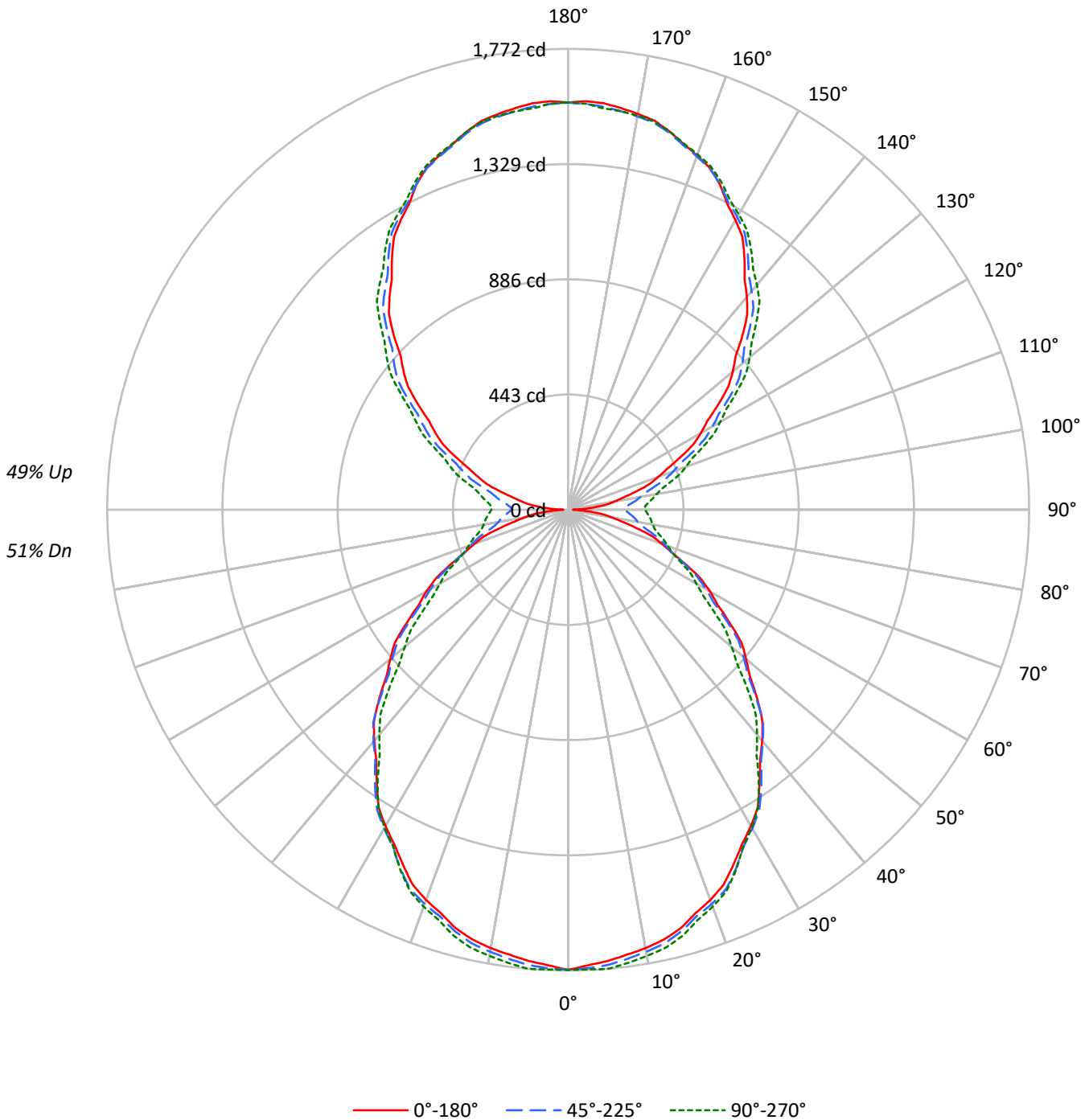
Lumens per Lamp: N/A
Luminaire Lumens: 9184.6 lumens
Efficiency: N/A
Efficacy: 117.5 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.19 / 1.3
Luminous Opening: Rectangular w/ Sides (W: 0.17' x L: 4' x H: 0.33')
CIE Type: General Diffuse

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					
RC	80					70					50					30					
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	50	30	10	
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°	28568	28568	28568
5°	28028	25224	24441
10°	27660	22463	21113
15°	27254	20116	18468
20°	26630	18048	16152
25°	25798	16099	14075
30°	24983	14259	12217
35°	23876	12560	10486
40°	22843	10969	8890
45°	21648	9429	7418
50°	20386	8019	6085
55°	19048	6739	4992
60°	17772	5559	4115
65°	16200	4537	3441
70°	14689	3700	2960
75°	12843	3102	2656
80°	10727	2706	2482
85°	7828	2532	2435

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 21648 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	167.1	1.8
10°-20°	474.1	5.2
20°-30°	700.1	7.6
30°-40°	805.6	8.8
40°-50°	781.8	8.5
50°-60°	658.8	7.2
60°-70°	492.7	5.4
70°-80°	340.5	3.7
80°-90°	241.4	2.6
90°-100°	241.6	2.6
100°-110°	360.8	3.9
110°-120°	523.1	5.7
120°-130°	674.3	7.3
130°-140°	761.7	8.3
140°-150°	752.5	8.2
150°-160°	636.5	6.9
160°-170°	423.8	4.6
170°-180°	148.2	1.6
0°-30°	1341.4	14.6
0°-40°	2147.0	23.4
0°-60°	3587.6	39.1
0°-90°	4662.1	50.8
90°-120°	1125.6	12.3
90°-150°	3314.1	36.1
90°-180°	4522.0	49.2
0°-180°	9184.6	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1769	1769	1769	1769	1769	
5°	1742	1774	1757	1760	1772	165
15°	1667	1695	1678	1685	1697	469
25°	1504	1532	1524	1517	1527	693
35°	1282	1306	1294	1277	1277	803
45°	1027	1042	1021	989	975	792
55°	757	774	743	699	684	679
65°	500	512	494	480	476	497
75°	270	283	323	352	360	289
85°	82	139	244	299	314	87
90°	19	104	216	276	295	17
95°	100	131	237	296	308	99
105°	269	277	343	393	403	287
115°	474	491	530	562	570	471
125°	703	726	759	784	791	630
135°	947	968	987	1012	1024	730
145°	1182	1196	1203	1212	1225	738
155°	1379	1387	1381	1383	1391	633
165°	1506	1512	1501	1496	1506	424
175°	1569	1575	1555	1549	1549	149
180°	1565	1565	1565	1565	1565	

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1769.4	1769.4	1769.4	1769.4	1769.4
2.5°	1753.4	1778.8	1764.7	1767.4	1769.4
5°	1741.9	1773.6	1756.9	1759.6	1771.9
7.5°	1725.9	1756.5	1742.0	1743.7	1757.9
10°	1711.9	1741.2	1726.0	1729.6	1741.9
12.5°	1693.9	1723.8	1708.7	1713.7	1725.9
15°	1666.9	1694.6	1678.5	1684.7	1696.9
17.5°	1626.9	1654.9	1639.6	1642.2	1654.4
20°	1596.9	1623.0	1613.6	1612.2	1624.4
22.5°	1560.9	1588.9	1581.6	1574.2	1588.4
25°	1504.4	1532.1	1524.4	1517.2	1526.9
27.5°	1448.5	1472.4	1460.0	1450.6	1458.0
30°	1404.5	1429.7	1415.3	1404.7	1412.0
32.5°	1356.5	1383.0	1367.3	1354.6	1358.0
35°	1282.0	1306.5	1294.5	1277.0	1277.0
37.5°	1211.6	1230.8	1217.7	1194.9	1189.6
40°	1159.6	1180.7	1163.7	1136.9	1129.6
42.5°	1105.6	1126.8	1109.1	1078.8	1067.6
45°	1027.1	1041.8	1021.3	989.3	974.6
47.5°	946.2	962.6	935.0	899.3	881.7
50°	892.2	909.3	879.7	839.2	819.7
52.5°	840.2	854.7	824.4	780.7	764.4
55°	757.2	773.5	743.1	699.4	683.9
57.5°	679.8	695.5	662.1	628.4	614.9
60°	629.8	643.6	611.4	581.1	568.9
62.5°	573.8	588.9	560.1	539.8	530.2
65°	499.8	512.0	493.9	480.5	476.4
67.5°	430.3	440.1	432.3	433.6	433.9
70°	382.4	392.1	395.6	405.6	407.2
72.5°	338.4	347.5	364.9	382.3	385.8
75°	269.9	282.9	323.1	352.3	360.4
77.5°	209.9	223.6	290.2	329.4	340.2
80°	169.9	192.7	272.2	317.4	329.5
82.5°	134.0	165.8	258.9	310.0	322.2
85°	82.5	138.6	243.8	299.0	313.6
87.5°	39.8	117.4	228.9	287.2	303.9
90°	19.1	104.5	216.3	276.5	295.2
92.5°	49.7	110.4	221.5	280.4	295.9
95°	99.8	131.4	236.9	296.3	308.4
97.5°	148.0	164.3	261.0	315.6	327.7
100°	181.2	191.7	280.9	333.6	344.9
102.5°	216.4	223.1	304.8	354.8	366.8
105°	269.3	277.4	343.2	393.3	403.1
107.5°	328.1	337.3	392.2	438.6	447.9
110°	367.3	381.1	428.8	470.5	481.1



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	411.2	425.0	467.3	505.1	515.7
115°	474.5	490.7	530.1	561.9	570.0
117.5°	540.6	559.1	594.8	623.7	631.5
120°	589.1	607.0	640.6	668.2	674.7
122.5°	633.0	652.8	687.1	714.7	721.2
125°	703.0	725.7	758.6	784.5	791.0
127.5°	774.7	797.8	828.1	854.3	862.8
130°	825.9	847.0	873.3	900.9	910.7
132.5°	872.4	893.6	917.8	946.1	957.2
135°	947.2	968.3	987.1	1012.3	1023.7
137.5°	1019.3	1039.8	1054.2	1074.2	1088.5
140°	1068.5	1086.4	1096.8	1115.3	1128.3
142.5°	1113.7	1131.6	1139.3	1155.2	1168.2
145°	1181.5	1196.1	1203.1	1211.7	1224.7
147.5°	1245.0	1259.3	1262.3	1269.8	1277.9
150°	1286.2	1299.2	1299.5	1303.0	1311.1
152.5°	1324.8	1336.5	1332.7	1335.0	1344.4
155°	1379.3	1387.4	1380.9	1382.8	1390.9
157.5°	1422.5	1430.6	1420.5	1423.6	1430.1
160°	1449.1	1457.2	1445.7	1447.6	1454.1
162.5°	1474.3	1479.8	1469.7	1467.6	1476.7
165°	1505.6	1512.1	1500.6	1495.8	1505.6
167.5°	1532.2	1538.7	1523.5	1518.4	1528.2
170°	1545.4	1551.9	1535.5	1529.1	1538.8
172.5°	1557.4	1563.9	1546.1	1538.3	1545.4
175°	1568.7	1575.2	1555.4	1548.8	1548.8
177.5°	1572.0	1575.9	1561.4	1554.9	1562.7
180°	1565.4	1565.4	1565.4	1565.4	1565.4

(END OF REPORT)