

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: P644265

Luminaire Tested: CRQ4DIP-SR4F0-125D125U940-FLLFLL-1DUDD-WW

Issue Date: 2/20/2023



Test Information

Test Method: LM-79-2019
Report Number: P644265
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-SR4F0-125D125U940-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: 4000K CCT, 90 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

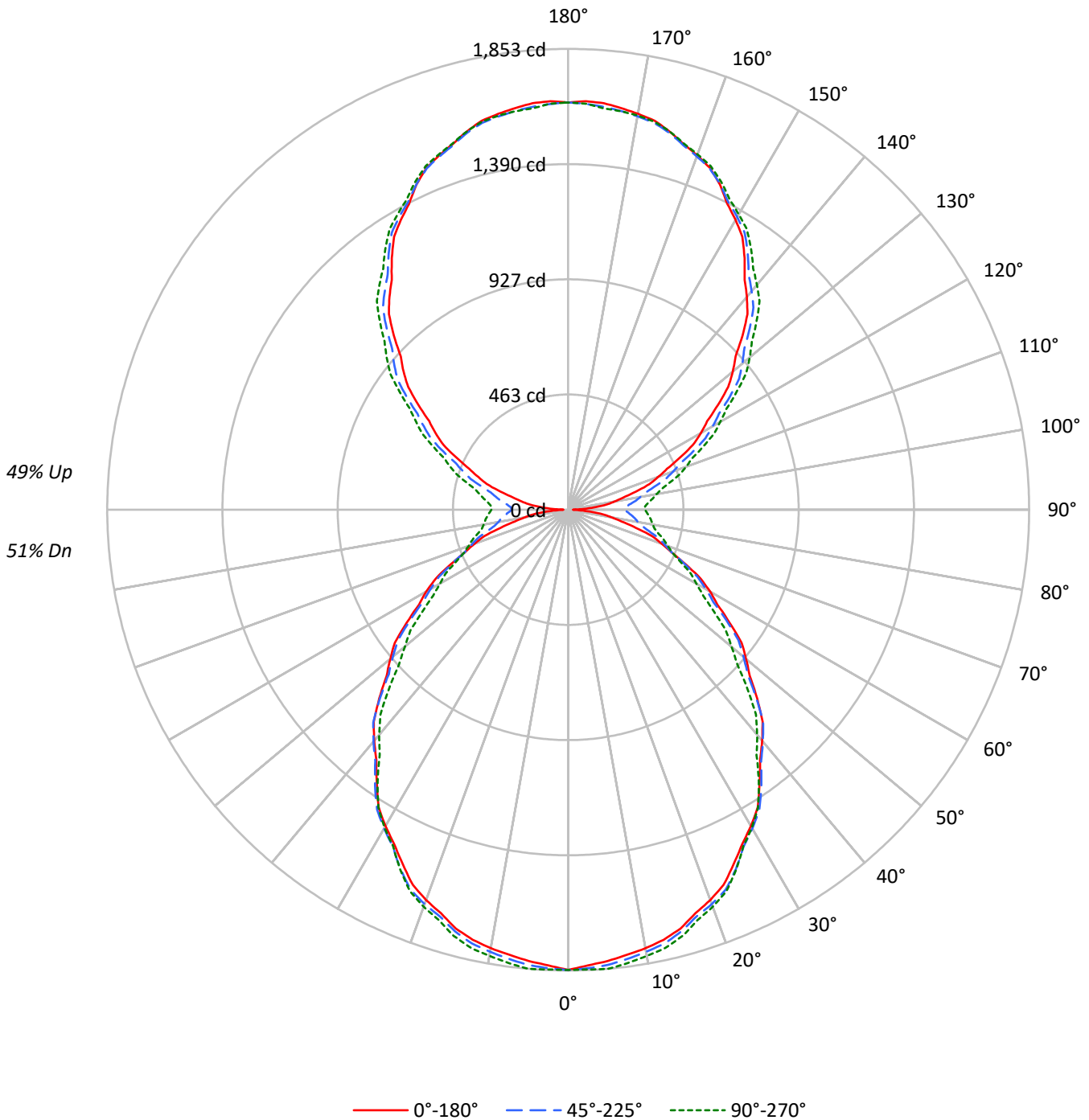
Lumens per Lamp: N/A
Luminaire Lumens: 9605.7 lumens
Efficiency: N/A
Efficacy: 122.8 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.19 / 1.3
Luminous Opening: Rectangular w/ Sides (W: 0.17' x L: 4' x H: 0.33')
CIE Type: General Diffuse

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	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°	29878	29878	29878
5°	29312	26380	25561
10°	28928	23494	22080
15°	28504	21039	19314
20°	27851	18876	16893
25°	26982	16837	14721
30°	26128	14913	12777
35°	24971	13136	10967
40°	23889	11472	9297
45°	22641	9861	7758
50°	21321	8386	6364
55°	19921	7048	5221
60°	18585	5815	4304
65°	16942	4745	3599
70°	15361	3870	3095
75°	13433	3244	2779
80°	11220	2830	2597
85°	8188	2648	2547

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 22641 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	174.7	1.8
10°-20°	495.9	5.2
20°-30°	732.2	7.6
30°-40°	842.6	8.8
40°-50°	817.7	8.5
50°-60°	689.0	7.2
60°-70°	515.3	5.4
70°-80°	356.1	3.7
80°-90°	252.4	2.6
90°-100°	252.7	2.6
100°-110°	377.4	3.9
110°-120°	547.1	5.7
120°-130°	705.3	7.3
130°-140°	796.6	8.3
140°-150°	787.0	8.2
150°-160°	665.6	6.9
160°-170°	443.2	4.6
170°-180°	155.0	1.6
0°-30°	1402.8	14.6
0°-40°	2245.4	23.4
0°-60°	3752.1	39.1
0°-90°	4875.9	50.8
90°-120°	1177.2	12.3
90°-150°	3466.0	36.1
90°-180°	4730.0	49.2
0°-180°	9605.7	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1850	1850	1850	1850	1850	
5°	1822	1855	1837	1840	1853	173
15°	1743	1772	1756	1762	1775	490
25°	1573	1602	1594	1587	1597	725
35°	1341	1366	1354	1336	1336	840
45°	1074	1090	1068	1035	1019	828
55°	792	809	777	731	715	710
65°	523	536	517	502	498	520
75°	282	296	338	368	377	302
85°	86	145	255	313	328	91
90°	20	109	226	289	309	18
95°	104	138	248	310	323	103
105°	282	290	359	411	422	300
115°	496	513	554	588	596	493
125°	735	759	793	820	827	659
135°	991	1013	1032	1059	1071	764
145°	1236	1251	1258	1267	1281	772
155°	1442	1451	1444	1446	1455	662
165°	1575	1581	1569	1564	1575	444
175°	1641	1647	1627	1620	1620	156
180°	1637	1637	1637	1637	1637	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1850.5	1850.5	1850.5	1850.5	1850.5
2.5°	1833.7	1860.3	1845.6	1848.4	1850.5
5°	1821.7	1854.9	1837.4	1840.3	1853.1
7.5°	1805.0	1837.0	1821.9	1823.6	1838.5
10°	1790.4	1821.0	1805.2	1808.9	1821.7
12.5°	1771.5	1802.9	1787.0	1792.2	1805.0
15°	1743.3	1772.3	1755.5	1761.9	1774.7
17.5°	1701.5	1730.8	1714.7	1717.5	1730.2
20°	1670.1	1697.4	1687.6	1686.1	1698.9
22.5°	1632.5	1661.8	1654.1	1646.4	1661.2
25°	1573.4	1602.4	1594.3	1586.7	1597.0
27.5°	1514.9	1539.9	1526.9	1517.1	1524.8
30°	1468.9	1495.3	1480.2	1469.1	1476.7
32.5°	1418.7	1446.5	1430.0	1416.7	1420.3
35°	1340.8	1366.4	1353.9	1335.6	1335.6
37.5°	1267.1	1287.2	1273.5	1249.7	1244.1
40°	1212.7	1234.9	1217.1	1189.0	1181.4
42.5°	1156.3	1178.4	1159.9	1128.3	1116.6
45°	1074.2	1089.5	1068.1	1034.7	1019.3
47.5°	989.5	1006.7	977.9	940.5	922.1
50°	933.1	951.0	920.0	877.7	857.3
52.5°	878.7	893.9	862.2	816.5	799.4
55°	791.9	809.0	777.1	731.4	715.2
57.5°	710.9	727.4	692.4	657.2	643.1
60°	658.6	673.1	639.5	607.8	595.0
62.5°	600.1	615.9	585.8	564.6	554.5
65°	522.7	535.5	516.6	502.5	498.2
67.5°	450.1	460.3	452.1	453.4	453.7
70°	399.9	410.1	413.8	424.2	425.8
72.5°	353.9	363.4	381.7	399.8	403.5
75°	282.3	295.9	337.9	368.5	377.0
77.5°	219.5	233.8	303.5	344.5	355.8
80°	177.7	201.5	284.7	331.9	344.7
82.5°	140.1	173.4	270.7	324.2	336.9
85°	86.3	144.9	255.0	312.7	328.0
87.5°	41.6	122.8	239.4	300.3	317.9
90°	20.0	109.3	226.2	289.2	308.8
92.5°	52.0	115.5	231.7	293.3	309.4
95°	104.3	137.5	247.8	309.8	322.6
97.5°	154.8	171.9	273.0	330.1	342.7
100°	189.5	200.5	293.8	348.8	360.8
102.5°	226.4	233.3	318.8	371.1	383.7
105°	281.6	290.1	358.9	411.3	421.5
107.5°	343.1	352.8	410.2	458.7	468.4
110°	384.1	398.6	448.4	492.1	503.2



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	430.0	444.4	488.7	528.3	539.3
115°	496.2	513.2	554.4	587.6	596.1
117.5°	565.4	584.8	622.0	652.3	660.4
120°	616.1	634.8	670.0	698.8	705.6
122.5°	662.0	682.7	718.7	747.5	754.3
125°	735.2	759.0	793.4	820.5	827.3
127.5°	810.3	834.4	866.0	893.5	902.4
130°	863.8	885.9	913.3	942.2	952.4
132.5°	912.4	934.5	959.9	989.5	1001.1
135°	990.6	1012.7	1032.4	1058.7	1070.6
137.5°	1066.1	1087.5	1102.6	1123.4	1138.4
140°	1117.5	1136.2	1147.1	1166.5	1180.1
142.5°	1164.8	1183.5	1191.5	1208.2	1221.8
145°	1235.7	1251.0	1258.3	1267.3	1280.9
147.5°	1302.1	1317.0	1320.2	1328.0	1336.5
150°	1345.2	1358.8	1359.1	1362.8	1371.3
152.5°	1385.5	1397.7	1393.8	1396.2	1406.0
155°	1442.5	1451.0	1444.2	1446.2	1454.7
157.5°	1487.7	1496.2	1485.6	1488.9	1495.7
160°	1515.5	1524.0	1512.0	1513.9	1520.7
162.5°	1541.9	1547.7	1537.1	1534.8	1544.4
165°	1574.6	1581.4	1569.4	1564.4	1574.6
167.5°	1602.4	1609.2	1593.4	1588.0	1598.2
170°	1616.3	1623.1	1605.9	1599.2	1609.4
172.5°	1628.8	1635.6	1617.0	1608.8	1616.3
175°	1640.6	1647.4	1626.7	1619.8	1619.8
177.5°	1644.1	1648.2	1633.0	1626.2	1634.4
180°	1637.2	1637.2	1637.2	1637.2	1637.2

(END OF REPORT)