

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: P644264

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

Issue Date: 2/20/2023



**Test Information**

Test Method: LM-79-2019  
Report Number: P644264  
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-SR4F0-125D125U935-FLLOOB-1DUDD-WW  
Description: NEO-RAY CIRQUE SUSPENDED LED LUMINAIRE  
DOWNLIGHT - CURVED FROSTED LENS - 1250 LUMENS PER FOOT  
UPLIGHT - BATWING OPTIC - 1250 LUMENS PER FOOT  
Light Source: 3500K CCT, 90 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

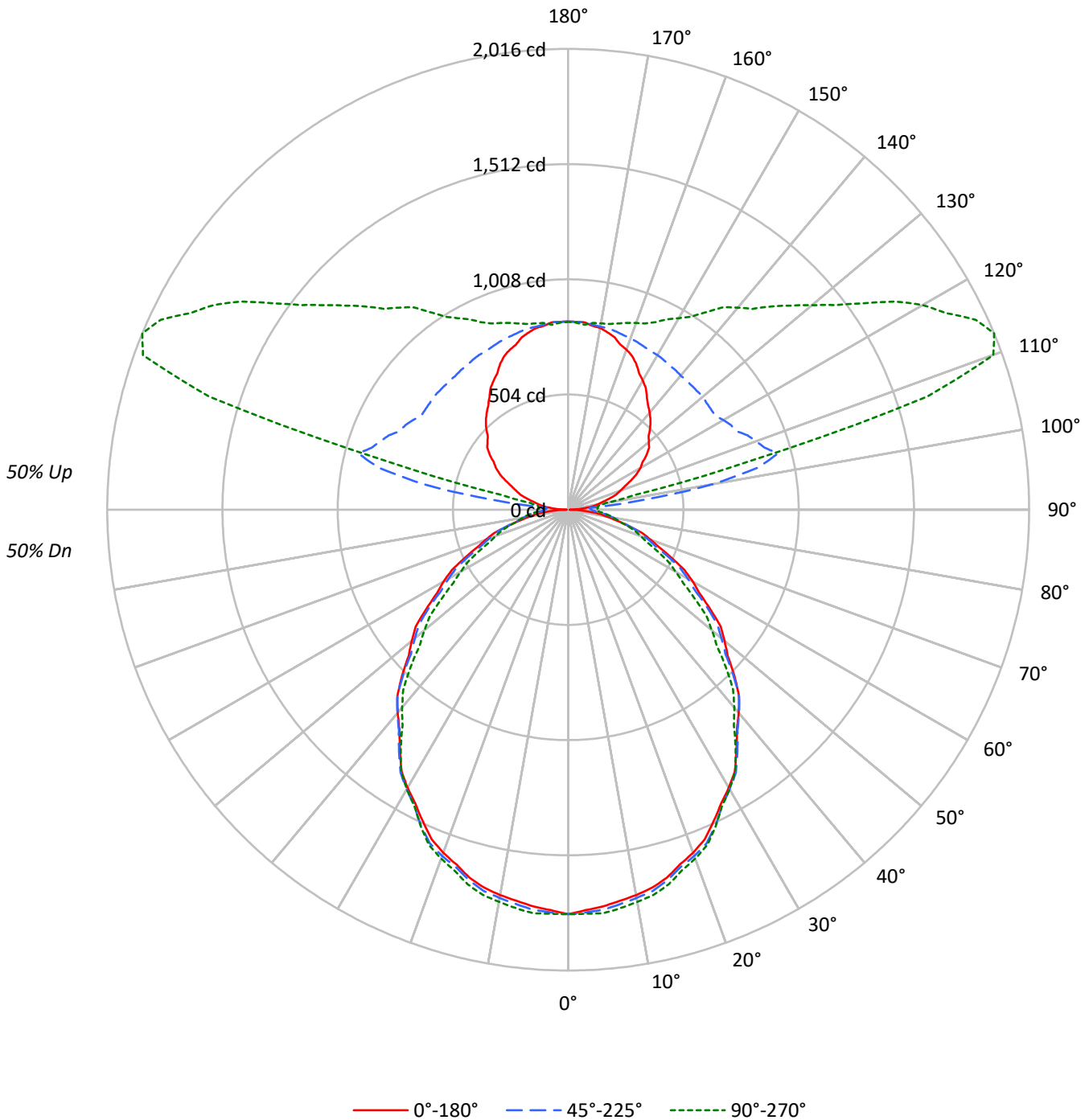
Lumens per Lamp: N/A  
Luminaire Lumens: 8982.8 lumens  
Efficiency: N/A  
Efficacy: 114.9 lumens/watt  
Spacing Criteria (0/90/45): 1.19 / 1.19 / 1.3  
Luminous Opening: Rectangular w/ Sides (W: 0.17' x L: 4' x H: 0.33')  
CIE Type: General Diffuse

Input Watts (W): 78.2  
Input Voltage (V): 120  
Input Current (A<sub>in</sub>): 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	83	83	83	69	69	69	56	56	56	50				
1	98	93	89	86	90	86	83	80	73	70	68	60	59	57	49	48	47	42				
2	89	81	75	70	82	75	70	65	64	60	56	53	50	48	43	41	40	35				
3	81	72	64	58	75	66	60	55	56	51	47	47	44	41	39	36	34	30				
4	74	63	56	50	68	59	52	46	50	45	41	42	38	35	34	32	29	26				
5	68	57	48	42	63	53	45	40	45	39	35	38	34	30	31	28	26	22				
6	63	51	43	37	58	47	40	35	40	35	31	34	30	27	28	25	23	20				
7	58	46	38	32	54	43	36	31	37	31	27	31	27	24	26	23	20	17				
8	54	42	34	29	50	39	32	27	34	28	24	29	24	21	24	20	18	16				
9	50	38	31	26	46	36	29	24	31	25	22	26	22	19	22	19	16	14				
10	47	35	28	23	43	33	26	22	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	22442	21113
15°	27254	20097	18468
20°	26630	18029	16152
25°	25798	16099	14075
30°	24983	14226	12217
35°	23876	12511	10486
40°	22843	10954	8890
45°	21648	9414	7418
50°	20386	7973	6085
55°	19048	6708	4908
60°	17772	5499	3923
65°	16200	4384	3105
70°	14689	3436	2452
75°	12843	2639	1934
80°	10727	1962	1506
85°	7828	1427	1144

**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°	167.0	1.9
10°-20°	473.9	5.3
20°-30°	699.6	7.8
30°-40°	804.3	9.0
40°-50°	780.2	8.7
50°-60°	653.1	7.3
60°-70°	470.6	5.2
70°-80°	287.5	3.2
80°-90°	141.5	1.6
90°-100°	156.4	1.7
100°-110°	740.8	8.2
110°-120°	985.6	11.0
120°-130°	799.4	8.9
130°-140°	640.9	7.1
140°-150°	505.0	5.6
150°-160°	369.3	4.1
160°-170°	229.4	2.6
170°-180°	78.2	0.9
0°-30°	1340.5	14.9
0°-40°	2144.8	23.9
0°-60°	3578.2	39.8
0°-90°	4477.8	49.8
90°-120°	1882.8	21.0
90°-150°	3828.2	42.6
90°-180°	4505.0	50.2
0°-180°	8982.8	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	1691	1677	1685	1697	469
25°	1504	1529	1524	1517	1527	693
35°	1282	1302	1290	1277	1277	803
45°	1027	1037	1020	989	975	792
55°	757	767	740	694	672	679
65°	500	502	477	442	430	497
75°	270	270	275	267	262	289
85°	82	100	137	147	147	87
90°	8	54	100	120	123	11
95°	66	99	94	117	129	67
105°	185	257	949	1219	819	196
115°	302	353	812	1683	1966	300
125°	419	470	763	1330	1573	372
135°	507	563	766	1096	1257	391
145°	600	651	771	954	1056	377
155°	704	729	786	865	906	323
165°	781	792	807	828	843	219
175°	823	828	823	817	812	78
180°	823	823	823	823	823	

TEST NUMBER: P644264

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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	1763.4	1767.4	1769.4
5°	1741.9	1773.6	1756.9	1759.6	1771.9
7.5°	1725.9	1755.2	1740.4	1743.7	1757.9
10°	1711.9	1741.2	1724.4	1729.6	1741.9
12.5°	1693.9	1721.2	1708.4	1713.7	1725.9
15°	1666.9	1691.3	1676.9	1684.7	1696.9
17.5°	1626.9	1653.3	1637.9	1642.2	1654.4
20°	1596.9	1621.4	1611.9	1612.2	1624.4
22.5°	1560.9	1587.3	1579.9	1574.2	1588.4
25°	1504.4	1528.9	1524.4	1517.2	1526.9
27.5°	1448.5	1466.6	1458.0	1450.6	1458.0
30°	1404.5	1426.5	1412.0	1404.7	1412.0
32.5°	1356.5	1378.5	1364.0	1354.6	1358.0
35°	1282.0	1301.6	1289.5	1277.0	1277.0
37.5°	1211.6	1224.3	1216.1	1194.9	1189.6
40°	1159.6	1174.2	1162.1	1136.9	1129.6
42.5°	1105.6	1120.3	1106.1	1078.8	1067.6
45°	1027.1	1036.9	1019.6	989.3	974.6
47.5°	946.2	956.4	932.7	899.3	881.7
50°	892.2	904.4	874.7	839.2	819.7
52.5°	840.2	848.5	820.7	779.3	761.7
55°	757.2	767.0	739.7	694.2	672.3
57.5°	679.8	689.0	656.8	613.4	596.3
60°	629.8	637.1	604.8	559.4	542.3
62.5°	573.8	581.1	550.8	511.4	494.3
65°	499.8	502.3	477.3	442.1	429.8
67.5°	430.3	430.3	409.4	383.1	373.4
70°	382.4	382.4	367.4	347.2	337.4
72.5°	338.4	336.4	327.4	313.2	305.4
75°	269.9	269.9	274.9	267.3	262.4
77.5°	209.9	206.0	227.4	226.4	223.9
80°	169.9	169.9	197.4	202.4	199.9
82.5°	134.0	137.9	173.4	180.4	177.9
85°	82.5	99.6	137.4	147.4	147.4
87.5°	37.5	68.3	110.0	124.1	124.6
90°	7.5	54.1	100.3	120.5	123.0
92.5°	27.9	55.0	96.7	121.2	129.7
95°	66.4	99.4	93.9	116.8	129.4
97.5°	103.5	162.2	342.2	142.3	133.1
100°	128.3	197.2	640.6	222.3	166.5
102.5°	151.1	224.1	847.8	508.8	297.2
105°	185.4	256.7	949.1	1219.0	819.2
107.5°	219.7	270.2	901.1	1755.3	1647.5
110°	242.5	291.0	874.3	1839.7	1978.8



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**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°
112.5°	267.3	315.8	849.5	1784.0	2016.2
115°	302.1	353.0	812.2	1682.8	1966.1
117.5°	337.4	390.2	802.4	1571.3	1862.7
120°	364.4	415.1	783.8	1486.8	1790.3
122.5°	385.1	437.9	763.1	1415.9	1695.1
125°	418.8	469.5	763.1	1330.2	1573.0
127.5°	445.8	500.5	764.2	1230.8	1470.6
130°	460.3	521.1	768.3	1164.2	1391.9
132.5°	477.0	537.8	766.3	1134.3	1321.5
135°	507.1	562.7	765.8	1095.5	1257.4
137.5°	533.0	592.7	765.8	1052.5	1191.1
140°	553.7	609.3	765.8	1027.4	1153.9
142.5°	574.4	626.0	770.0	998.2	1116.6
145°	600.2	650.8	771.0	954.4	1055.6
147.5°	631.3	675.8	777.2	922.8	1000.7
150°	652.0	692.5	781.3	901.8	967.6
152.5°	672.7	709.1	781.3	885.0	938.6
155°	703.7	729.0	786.5	865.0	905.5
157.5°	728.6	752.8	792.7	852.4	881.7
160°	745.1	765.4	796.9	844.0	869.3
162.5°	757.5	777.8	801.0	839.7	856.9
165°	781.3	791.5	807.2	828.3	843.4
167.5°	794.8	803.9	812.4	822.9	832.0
170°	807.2	812.3	812.4	822.8	827.9
172.5°	811.3	820.5	816.5	818.7	823.8
175°	822.7	827.8	822.7	817.4	812.4
177.5°	822.7	826.8	822.7	822.6	818.6
180°	822.7	822.7	822.7	822.7	822.7

(END OF REPORT)