

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: P644406

Luminaire Tested: CRQ4DIP-SR4F0-75D125U930-FLLOOB-1DUDD-WW

Issue Date: 2/20/2023



Test Information

Test Method: LM-79-2019
Report Number: P644406
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-SR4F0-75D125U930-FLLOOB-1DUDD-WW
Description: NEO-RAY CIRQUE SUSPENDED LED LUMINAIRE
DOWNLIGHT - CURVED FROSTED LENS - 750 LUMENS PER FOOT
UPLIGHT - BATWING OPTIC - 1250 LUMENS PER FOOT
Light Source: 3000K CCT, 90 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

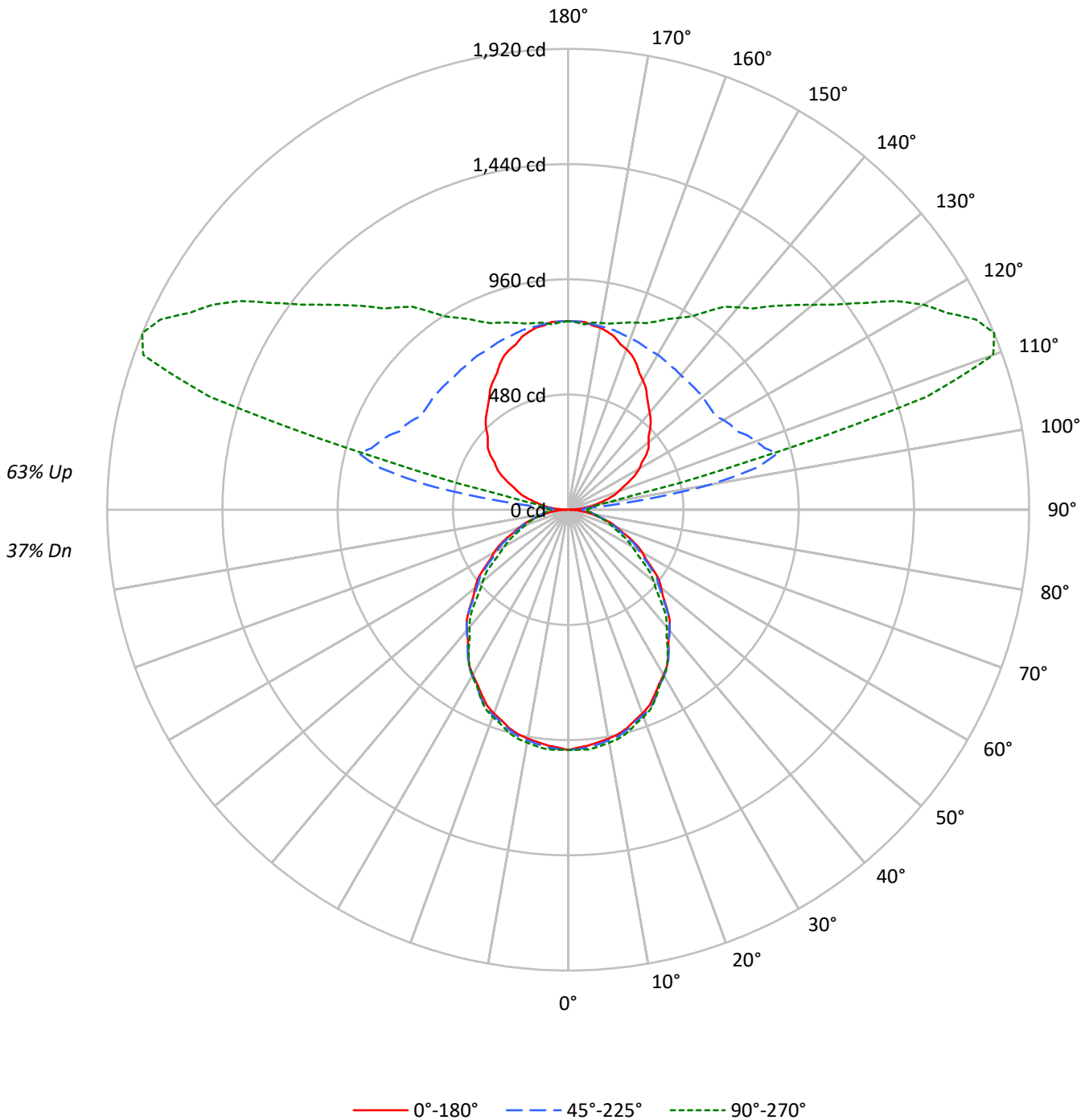
Lumens per Lamp: N/A
Luminaire Lumens: 6799.7 lumens
Efficiency: N/A
Efficacy: 113.3 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.19 / 1.3
Luminous Opening: Rectangular w/ Sides (W: 0.17' x L: 4' x H: 0.33')
CIE Type: Semi-Indirect

Input Watts (W): 60
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	104	104	104	104	94	94	94	94	76	76	76	60	60	60	44	44	44	37
1	95	90	87	83	86	82	79	76	67	64	62	52	51	49	39	38	37	31
2	86	79	73	68	78	72	67	62	58	55	52	46	43	41	34	33	31	26
3	79	69	62	57	71	63	57	52	51	47	43	41	38	35	31	28	27	22
4	72	61	54	48	65	56	49	44	46	41	37	36	33	30	27	25	23	19
5	66	55	47	41	60	50	43	38	41	36	32	32	29	26	25	22	20	17
6	61	49	41	35	55	45	38	33	37	32	28	29	26	23	22	20	18	15
7	56	44	36	31	51	40	34	29	33	28	24	27	23	20	20	18	16	13
8	52	40	33	27	47	37	30	25	30	25	22	24	21	18	19	16	14	12
9	48	37	29	24	44	34	27	23	28	23	19	22	19	16	17	15	13	11
10	45	33	26	22	41	31	24	20	26	21	17	21	17	14	16	13	12	10

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	16162	16162	16162
5°	15857	14271	13828
10°	15649	12697	11945
15°	15420	11370	10448
20°	15067	10201	9138
25°	14597	9108	7963
30°	14134	8049	6913
35°	13508	7079	5933
40°	12923	6197	5030
45°	12248	5326	4197
50°	11534	4511	3443
55°	10777	3795	2776
60°	10054	3111	2219
65°	9166	2481	1757
70°	8309	1944	1388
75°	7266	1493	1094
80°	6068	1110	852
85°	4431	808	648

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 12248 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	94.5	1.4
10°-20°	268.1	3.9
20°-30°	395.8	5.8
30°-40°	455.1	6.7
40°-50°	441.4	6.5
50°-60°	369.5	5.4
60°-70°	266.2	3.9
70°-80°	162.7	2.4
80°-90°	80.8	1.2
90°-100°	127.8	1.9
100°-110°	699.1	10.3
110°-120°	937.7	13.8
120°-130°	761.6	11.2
130°-140°	611.4	9.0
140°-150°	481.9	7.1
150°-160°	352.4	5.2
160°-170°	218.9	3.2
170°-180°	74.6	1.1
0°-30°	758.4	11.2
0°-40°	1213.5	17.8
0°-60°	2024.4	29.8
0°-90°	2534.1	37.3
90°-120°	1764.7	26.0
90°-150°	3619.7	53.2
90°-180°	4266.0	62.7
0°-180°	6799.7	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1001	1001	1001	1001	1001	
5°	986	1004	994	996	1002	94
15°	943	957	949	953	960	265
25°	851	865	862	858	864	392
35°	725	736	730	722	722	454
45°	581	587	577	560	551	448
55°	428	434	418	393	380	384
65°	283	284	270	250	243	281
75°	153	153	156	151	148	163
85°	47	56	78	83	83	49
90°	4	33	61	74	76	7
95°	54	86	69	84	95	56
105°	167	241	901	1154	771	176
115°	282	334	773	1604	1874	279
125°	396	446	727	1269	1501	351
135°	484	537	731	1045	1200	373
145°	573	621	736	911	1007	360
155°	672	696	750	825	864	308
165°	746	755	770	790	805	209
175°	785	790	785	780	775	74
180°	785	785	785	785	785	

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1001.0	1001.0	1001.0	1001.0	1001.0
2.5°	992.0	1006.4	997.6	999.9	1001.0
5°	985.5	1003.5	994.0	995.5	1002.5
7.5°	976.4	993.0	984.6	986.5	994.5
10°	968.5	985.1	975.6	978.6	985.5
12.5°	958.3	973.8	966.5	969.5	976.4
15°	943.1	956.9	948.7	953.1	960.0
17.5°	920.4	935.4	926.7	929.1	936.0
20°	903.5	917.3	912.0	912.1	919.0
22.5°	883.1	898.0	893.9	890.7	898.7
25°	851.2	865.0	862.5	858.4	863.9
27.5°	819.5	829.7	824.9	820.7	824.9
30°	794.6	807.1	798.9	794.7	798.9
32.5°	767.5	779.9	771.7	766.4	768.3
35°	725.3	736.4	729.6	722.5	722.5
37.5°	685.5	692.6	688.0	676.1	673.0
40°	656.0	664.3	657.5	643.2	639.1
42.5°	625.5	633.8	625.8	610.4	604.0
45°	581.1	586.6	576.9	559.7	551.4
47.5°	535.3	541.1	527.7	508.8	498.8
50°	504.8	511.7	494.9	474.8	463.8
52.5°	475.4	480.1	464.3	440.9	431.0
55°	428.4	433.9	418.5	392.8	380.3
57.5°	384.6	389.8	371.6	347.0	337.4
60°	356.3	360.4	342.2	316.5	306.8
62.5°	324.6	328.8	311.6	289.3	279.7
65°	282.8	284.2	270.1	250.1	243.2
67.5°	243.5	243.5	231.6	216.8	211.2
70°	216.3	216.3	207.8	196.4	190.9
72.5°	191.4	190.3	185.2	177.2	172.8
75°	152.7	152.7	155.5	151.2	148.5
77.5°	118.8	116.6	128.7	128.1	126.7
80°	96.1	96.1	111.7	114.5	113.1
82.5°	75.8	78.0	98.1	102.1	100.7
85°	46.7	56.3	77.8	83.4	83.4
87.5°	21.2	39.0	63.1	71.4	71.7
90°	4.2	32.6	60.8	74.2	75.6
92.5°	20.6	37.9	63.6	81.1	87.4
95°	53.6	86.1	69.2	84.3	95.3
97.5°	87.1	149.0	311.8	115.4	105.5
100°	110.8	183.2	599.6	195.6	140.4
102.5°	133.3	209.6	800.5	472.1	269.1
105°	167.2	241.0	900.8	1154.4	771.0
107.5°	201.1	254.8	857.2	1669.5	1565.6
110°	223.6	274.6	832.3	1751.6	1883.3



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	247.3	298.3	808.6	1700.0	1920.5
115°	281.5	333.9	773.1	1603.8	1874.1
117.5°	316.3	369.4	763.9	1498.6	1776.6
120°	342.8	393.2	747.0	1418.7	1708.4
122.5°	362.6	415.7	727.2	1351.0	1617.5
125°	395.7	446.1	727.2	1269.3	1501.0
127.5°	422.7	475.6	728.2	1174.4	1403.2
130°	437.3	495.3	732.2	1110.9	1328.2
132.5°	454.8	512.7	731.0	1082.4	1261.0
135°	483.9	537.0	730.7	1045.3	1199.8
137.5°	508.6	565.5	730.7	1004.3	1136.6
140°	528.3	581.4	730.7	980.4	1101.1
142.5°	548.1	597.3	734.7	952.5	1065.5
145°	572.7	621.0	735.7	910.7	1007.2
147.5°	602.4	644.9	741.6	880.6	954.9
150°	622.1	660.7	745.6	860.5	923.3
152.5°	641.9	676.6	745.6	844.5	895.7
155°	671.5	695.6	750.5	825.4	864.1
157.5°	695.2	718.4	756.4	813.3	841.3
160°	711.0	730.3	760.4	805.4	829.5
162.5°	722.8	742.2	764.3	801.2	817.6
165°	745.6	755.2	770.2	790.3	804.8
167.5°	758.4	767.1	775.2	785.3	793.9
170°	770.2	775.1	775.2	785.2	790.0
172.5°	774.2	782.9	779.1	781.2	786.0
175°	785.1	789.9	785.1	780.0	775.2
177.5°	785.1	788.9	785.1	785.0	781.1
180°	785.1	785.1	785.1	785.1	785.1

(END OF REPORT)