

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: P644192

Luminaire Tested: CRQ4DIP-SR4F0-100D125U935-FLLOOB-1DUDD-WW

Issue Date: 2/20/2023



Test Information

Test Method: LM-79-2019
Report Number: P644192
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-SR4F0-100D125U935-FLLOOB-1DUDD-WW
Description: NEO-RAY CIRQUE SUSPENDED LED LUMINAIRE
DOWNLIGHT - CURVED FROSTED LENS - 1000 LUMENS PER FOOT
UPLIGHT - BATWING OPTIC - 1250 LUMENS PER FOOT
Light Source: 3500K CCT, 90 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

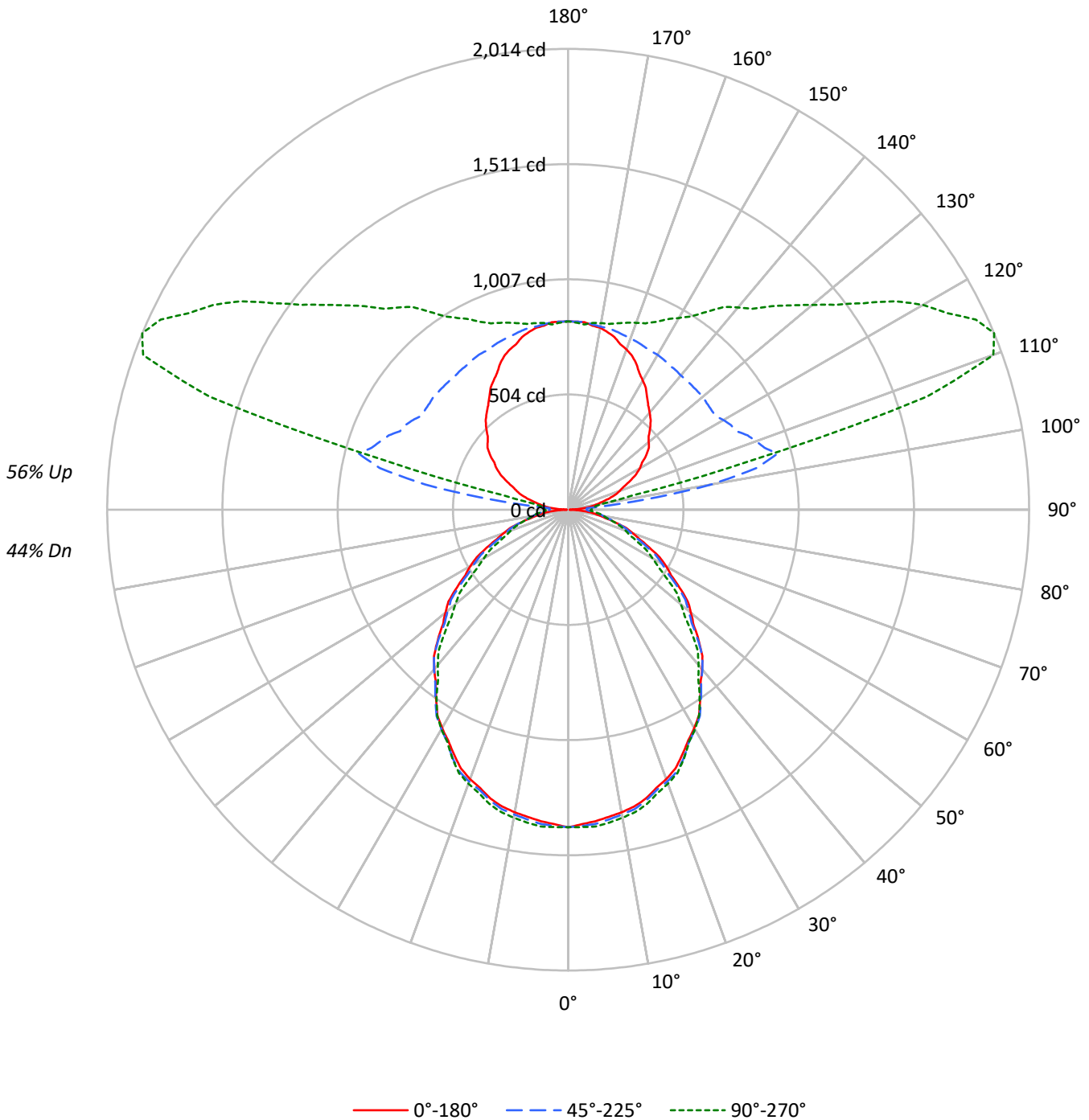
Lumens per Lamp: N/A
Luminaire Lumens: 7999.7 lumens
Efficiency: N/A
Efficacy: 117.5 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.19 / 1.3
Luminous Opening: Rectangular w/ Sides (W: 0.17' x L: 4' x H: 0.33')
CIE Type: General Diffuse

Input Watts (W): 68.1
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	106	106	106	106	97	97	97	97	80	80	80		65	65	65		51	51	51	44
1	96	92	88	84	88	84	81	78	70	67	65		57	55	53		44	43	42	37
2	88	80	74	69	80	74	68	64	61	57	54		50	47	45		39	37	36	31
3	80	71	63	58	73	65	59	53	54	49	46		44	41	38		35	32	30	26
4	73	63	55	49	67	58	51	45	48	43	39		39	36	33		31	28	26	23
5	67	56	48	42	61	51	44	39	43	38	34		35	31	28		28	25	23	20
6	62	50	42	36	56	46	39	34	39	33	29		32	28	25		26	23	20	17
7	57	45	37	32	52	42	35	30	35	30	26		29	25	22		23	20	18	15
8	53	41	33	28	49	38	31	26	32	27	23		27	23	20		21	18	16	14
9	49	37	30	25	45	35	28	23	29	24	20		24	20	18		20	17	15	12
10	46	34	27	22	42	32	25	21	27	22	18		23	19	16		18	15	13	11

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	22410	22410	22410
5°	21987	19787	19174
10°	21698	17605	16563
15°	21380	15766	14488
20°	20890	14143	12671
25°	20239	12629	11042
30°	19599	11160	9584
35°	18730	9815	8226
40°	17921	8592	6973
45°	16984	7385	5820
50°	15992	6255	4774
55°	14942	5263	3850
60°	13940	4313	3077
65°	12709	3440	2436
70°	11524	2695	1924
75°	10074	2071	1517
80°	8417	1540	1181
85°	6139	1120	898

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 16984 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	131.0	1.6
10°-20°	371.8	4.6
20°-30°	548.8	6.9
30°-40°	631.0	7.9
40°-50°	612.1	7.7
50°-60°	512.4	6.4
60°-70°	369.2	4.6
70°-80°	225.6	2.8
80°-90°	111.4	1.4
90°-100°	144.5	1.8
100°-110°	736.5	9.2
110°-120°	984.1	12.3
120°-130°	798.7	10.0
130°-140°	640.9	8.0
140°-150°	505.0	6.3
150°-160°	369.3	4.6
160°-170°	229.4	2.9
170°-180°	78.2	1.0
0°-30°	1051.6	13.1
0°-40°	1682.5	21.0
0°-60°	2807.0	35.1
0°-90°	3513.1	43.9
90°-120°	1865.1	23.3
90°-150°	3809.7	47.6
90°-180°	4487.0	56.1
0°-180°	7999.7	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1388	1388	1388	1388	1388	
5°	1366	1391	1378	1380	1390	130
15°	1308	1327	1316	1322	1331	368
25°	1180	1199	1196	1190	1198	544
35°	1006	1021	1012	1002	1002	630
45°	806	813	800	776	765	621
55°	594	602	580	545	527	533
65°	392	394	374	347	337	390
75°	212	212	216	210	206	226
85°	65	78	108	116	116	68
90°	6	44	81	98	100	9
95°	61	94	83	102	114	63
105°	180	254	946	1214	813	190
115°	298	351	811	1682	1965	296
125°	417	468	763	1330	1573	370
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	

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1388.0	1388.0	1388.0	1388.0	<i>1388.0</i>
2.5°	1375.5	1395.4	1383.3	1386.5	<i>1388.0</i>
5°	1366.5	1391.4	1378.2	1380.4	<i>1390.0</i>
7.5°	1353.9	1376.9	1365.3	1367.9	<i>1379.0</i>
10°	1342.9	1365.9	1352.7	1356.9	<i>1366.5</i>
12.5°	1328.8	1350.3	1340.2	1344.3	<i>1353.9</i>
15°	1307.6	1326.8	1315.5	1321.6	<i>1331.2</i>
17.5°	1276.3	1297.0	1284.9	1288.3	<i>1297.8</i>
20°	1252.7	1271.9	1264.5	1264.7	<i>1274.3</i>
22.5°	1224.5	1245.2	1239.4	1235.0	<i>1246.1</i>
25°	1180.2	1199.4	1195.9	1190.2	<i>1197.9</i>
27.5°	1136.3	1150.5	1143.7	1138.0	<i>1143.7</i>
30°	1101.8	1119.0	1107.7	1101.9	<i>1107.7</i>
32.5°	1064.1	1081.4	1070.0	1062.6	<i>1065.3</i>
35°	1005.7	1021.1	1011.6	1001.8	<i>1001.8</i>
37.5°	950.4	960.4	954.0	937.4	<i>933.2</i>
40°	909.7	921.2	911.6	891.9	<i>886.1</i>
42.5°	867.3	878.8	867.7	846.3	<i>837.5</i>
45°	805.8	813.4	799.9	776.1	<i>764.6</i>
47.5°	742.2	750.3	731.6	705.5	<i>691.7</i>
50°	699.9	709.5	686.2	658.4	<i>643.0</i>
52.5°	659.1	665.6	643.8	611.4	<i>597.6</i>
55°	594.0	601.7	580.3	544.6	<i>527.4</i>
57.5°	533.2	540.5	515.2	481.2	<i>467.8</i>
60°	494.0	499.8	474.4	438.8	<i>425.4</i>
62.5°	450.1	455.9	432.1	401.2	<i>387.8</i>
65°	392.1	394.0	374.5	346.8	<i>337.2</i>
67.5°	337.6	337.6	321.1	300.6	<i>292.9</i>
70°	300.0	300.0	288.2	272.3	<i>264.7</i>
72.5°	265.4	263.9	256.8	245.7	<i>239.6</i>
75°	211.7	211.7	215.7	209.7	<i>205.8</i>
77.5°	164.7	161.6	178.4	177.6	<i>175.7</i>
80°	133.3	133.3	154.9	158.8	<i>156.8</i>
82.5°	105.1	108.1	136.1	141.5	<i>139.6</i>
85°	64.7	78.1	107.8	115.7	<i>115.7</i>
87.5°	29.4	53.8	86.8	98.0	<i>98.4</i>
90°	5.9	43.5	80.9	97.9	<i>99.8</i>
92.5°	24.6	46.9	80.8	102.0	<i>109.5</i>
95°	61.0	94.5	82.6	101.7	<i>113.8</i>
97.5°	97.0	159.0	334.1	131.0	<i>121.1</i>
100°	121.8	194.4	634.1	213.1	<i>156.3</i>
102.5°	145.1	221.7	843.1	501.4	<i>289.2</i>
105°	180.0	254.5	946.4	1214.2	<i>813.3</i>
107.5°	214.9	268.6	899.6	1752.3	<i>1643.9</i>
110°	238.2	289.3	873.2	1837.6	<i>1976.1</i>



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	263.0	314.1	848.4	1782.7	2014.3
115°	298.3	351.4	811.1	1681.7	1965.0
117.5°	334.3	388.6	801.4	1570.9	1862.3
120°	361.7	413.5	783.3	1486.8	1790.3
122.5°	382.4	436.7	762.6	1415.9	1695.1
125°	416.6	468.4	762.6	1330.2	1573.0
127.5°	444.3	499.4	763.6	1230.8	1470.6
130°	459.3	520.0	767.8	1164.2	1391.9
132.5°	476.8	537.5	766.2	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)