

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: P644417

Luminaire Tested: CRQ4DIP-SR4F0-75D150U930-FLLFLL-1DUDD-WW

Issue Date: 2/20/2023



Test Information

Test Method: LM-79-2019
Report Number: P644417
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-SR4F0-75D150U930-FLLFLL-1DUDD-WW
Description: NEO-RAY CIRQUE SUSPENDED LED LUMINAIRE
DOWNLIGHT - CURVED FROSTED LENS - 750 LUMENS PER FOOT
UPLIGHT - CURVED FROSTED LENS - 1500 LUMENS PER FOOT
Light Source: 3000K CCT, 90 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

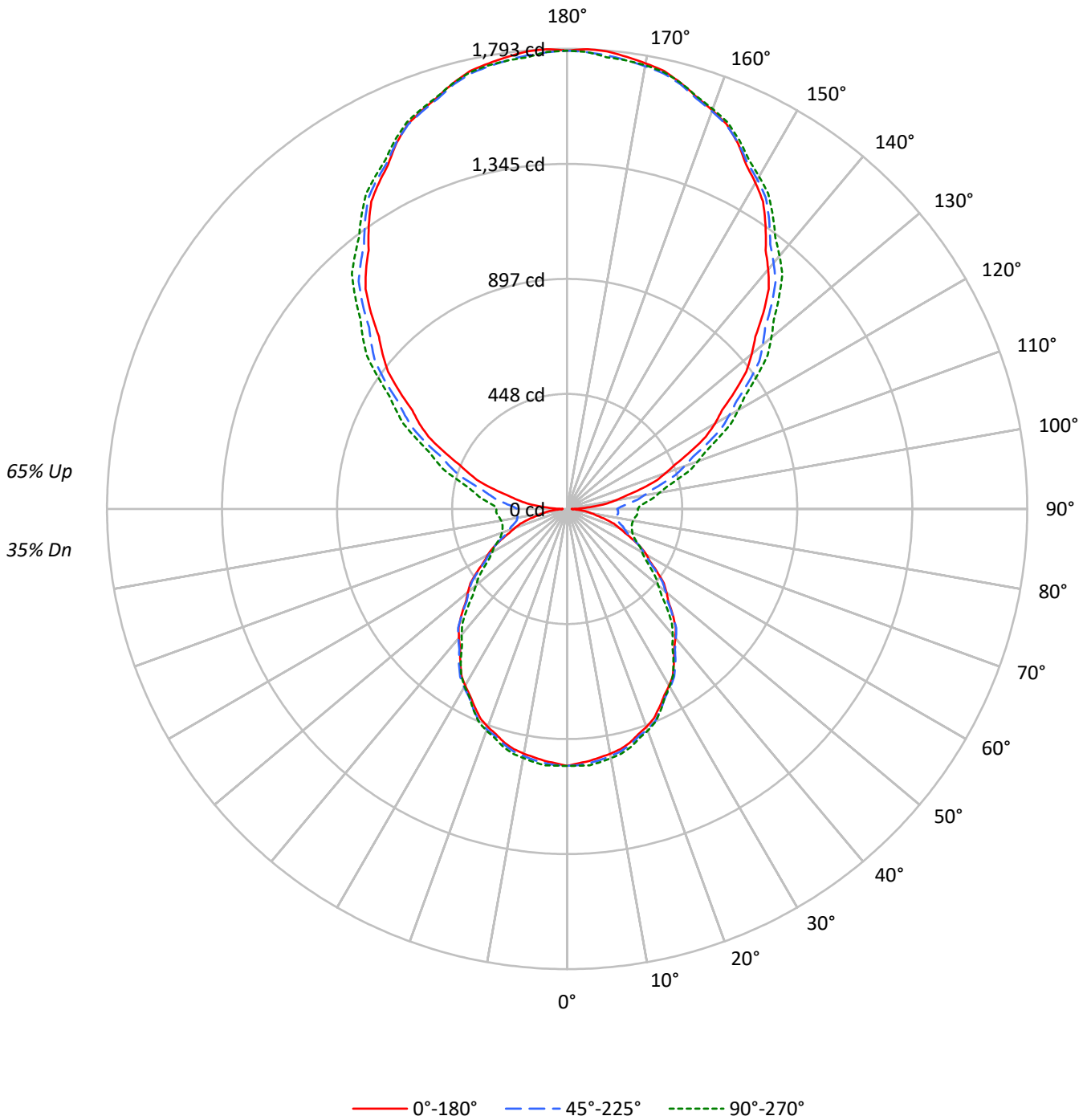
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 7854.8 lumens
Efficiency: N/A
Efficacy: 111.6 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): 70.4
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					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	104	104	104	104	94	94	94	94	75	75	75	58	58	58	42	42	42	35				
1	94	89	85	81	84	81	77	74	64	62	60	50	48	47	36	35	34	28				
2	85	78	71	66	77	70	65	60	56	52	49	43	41	39	32	30	28	23				
3	78	68	61	55	70	62	55	50	50	45	41	38	35	33	28	26	24	19				
4	71	60	52	46	64	55	48	43	44	39	35	34	31	28	25	23	21	17				
5	65	54	45	40	58	49	42	36	39	34	30	31	27	24	23	20	18	15				
6	60	48	40	34	54	44	37	31	35	30	26	28	24	21	20	18	16	13				
7	55	43	35	30	50	39	32	28	32	27	23	25	21	19	19	16	14	11				
8	51	39	31	26	46	36	29	24	29	24	20	23	19	16	17	15	13	10				
9	48	36	28	23	43	33	26	22	27	22	18	21	17	15	16	13	11	9				
10	44	33	25	21	40	30	24	19	24	20	16	19	16	13	15	12	10	8				

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	16162	16162	16162
5°	15857	14271	13828
10°	15649	12722	11945
15°	15420	11393	10448
20°	15067	10222	9138
25°	14597	9108	7963
30°	14134	8086	6913
35°	13508	7134	5933
40°	12923	6215	5030
45°	12248	5344	4197
50°	11534	4563	3443
55°	10777	3830	2873
60°	10054	3180	2438
65°	9166	2655	2140
70°	8309	2246	1966
75°	7266	2021	1918
80°	6068	1958	1966
85°	4431	2068	2120

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	1.2
10°-20°	268.4	3.4
20°-30°	396.5	5.0
30°-40°	456.6	5.8
40°-50°	443.3	5.6
50°-60°	375.9	4.8
60°-70°	291.5	3.7
70°-80°	223.1	2.8
80°-90°	195.0	2.5
90°-100°	243.8	3.1
100°-110°	400.1	5.1
110°-120°	592.7	7.5
120°-130°	767.6	9.8
130°-140°	868.7	11.1
140°-150°	858.4	10.9
150°-160°	726.1	9.2
160°-170°	483.4	6.2
170°-180°	169.1	2.2
0°-30°	759.4	9.7
0°-40°	1215.9	15.5
0°-60°	2035.1	25.9
0°-90°	2744.8	34.9
90°-120°	1236.7	15.7
90°-150°	3731.5	47.5
90°-180°	5110.0	65.1
0°-180°	7854.8	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	961	951	953	960	265
25°	851	869	862	858	864	392
35°	725	742	735	722	722	454
45°	581	592	579	560	551	448
55°	428	441	422	399	394	384
65°	283	295	289	294	296	281
75°	153	168	210	248	260	163
85°	47	101	199	256	273	50
90°	18	91	195	255	275	15
95°	99	137	240	298	310	101
105°	293	310	384	436	444	312
115°	531	555	602	638	647	528
125°	796	825	864	895	902	714
135°	1081	1105	1126	1155	1168	833
145°	1348	1364	1372	1382	1397	842
155°	1573	1583	1575	1577	1587	723
165°	1718	1725	1712	1706	1718	484
175°	1790	1797	1774	1767	1767	170
180°	1786	1786	1786	1786	1786	

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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	999.2	999.9	1001.0
5°	985.5	1003.5	994.0	995.5	1002.5
7.5°	976.4	994.5	986.5	986.5	994.5
10°	968.5	985.1	977.5	978.6	985.5
12.5°	958.3	976.8	966.9	969.5	976.4
15°	943.1	960.6	950.6	953.1	960.0
17.5°	920.4	937.2	928.6	929.1	936.0
20°	903.5	919.2	913.9	912.1	919.0
22.5°	883.1	899.9	895.8	890.7	898.7
25°	851.2	868.7	862.5	858.4	863.9
27.5°	819.5	836.4	827.1	820.7	824.9
30°	794.6	810.8	802.6	794.7	798.9
32.5°	767.5	785.1	775.5	766.4	768.3
35°	725.3	741.9	735.3	722.5	722.5
37.5°	685.5	700.1	689.9	676.1	673.0
40°	656.0	671.8	659.4	643.2	639.1
42.5°	625.5	641.2	629.2	610.4	604.0
45°	581.1	592.2	578.8	559.7	551.4
47.5°	535.3	548.2	530.3	508.8	498.8
50°	504.8	517.2	500.6	474.8	463.8
52.5°	475.4	487.1	468.5	442.5	434.0
55°	428.4	441.4	422.3	398.6	393.6
57.5°	384.6	397.2	377.6	364.2	358.6
60°	356.3	367.9	349.7	341.3	337.1
62.5°	324.6	337.7	322.2	321.8	320.6
65°	282.8	295.3	289.0	293.9	296.3
67.5°	243.5	254.6	257.8	274.3	280.2
70°	216.3	227.4	240.1	263.1	270.5
72.5°	191.4	202.9	228.1	256.0	264.5
75°	152.7	167.5	210.5	248.2	260.3
77.5°	118.8	136.6	200.3	245.6	259.4
80°	96.1	122.1	197.0	245.7	261.0
82.5°	75.8	109.9	195.6	249.9	265.2
85°	46.7	100.8	199.1	256.3	273.0
87.5°	23.9	95.2	199.1	258.1	276.9
90°	17.5	91.1	195.0	255.1	275.0
92.5°	47.8	104.4	210.2	268.7	283.8
95°	99.4	137.0	240.1	297.7	310.2
97.5°	151.6	179.0	275.9	329.9	341.9
100°	189.5	211.3	303.2	356.0	366.2
102.5°	230.8	248.2	335.1	384.9	396.9
105°	292.8	310.5	384.3	435.7	444.0
107.5°	361.6	380.3	443.4	492.3	501.5
110°	407.5	430.3	486.2	531.0	541.7

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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	457.6	480.3	530.2	572.7	583.4
115°	531.2	555.3	601.9	638.1	647.4
117.5°	608.4	633.4	675.9	710.3	719.2
120°	664.9	688.1	729.4	762.2	769.7
122.5°	714.9	741.5	782.4	815.3	822.7
125°	796.2	824.9	864.0	894.9	902.4
127.5°	879.8	907.2	943.2	974.6	984.3
130°	939.3	963.4	994.8	1027.7	1038.9
132.5°	994.7	1018.8	1046.7	1079.3	1091.9
135°	1080.6	1104.7	1126.1	1154.8	1167.8
137.5°	1162.8	1186.2	1202.6	1225.4	1241.7
140°	1218.9	1239.3	1251.2	1272.4	1287.2
142.5°	1270.5	1290.9	1299.7	1317.9	1332.7
145°	1347.9	1364.5	1372.5	1382.3	1397.1
147.5°	1420.3	1436.6	1440.0	1448.5	1457.8
150°	1467.3	1482.1	1482.4	1486.5	1495.7
152.5°	1511.3	1524.6	1520.4	1522.9	1533.6
155°	1573.4	1582.7	1575.3	1577.4	1586.7
157.5°	1622.7	1632.0	1620.5	1624.0	1631.5
160°	1653.1	1662.3	1649.3	1651.3	1658.8
162.5°	1681.9	1688.2	1676.6	1674.2	1684.5
165°	1717.5	1724.9	1711.8	1706.4	1717.5
167.5°	1747.9	1755.3	1738.0	1732.2	1743.3
170°	1763.0	1770.4	1751.6	1744.3	1755.4
172.5°	1776.7	1784.1	1763.8	1754.9	1763.0
175°	1789.6	1797.0	1774.4	1766.8	1766.8
177.5°	1793.3	1797.8	1781.2	1773.8	1782.7
180°	1785.8	1785.8	1785.8	1785.8	1785.8

(END OF REPORT)