

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: P644293

Luminaire Tested: CRQ4DIP-SR4F0-125D50U835-FLLFLL-1DUDD-WW

Issue Date: 2/20/2023



Test Information

Test Method: LM-79-2019
Report Number: P644293
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-SR4F0-125D50U835-FLLFLL-1DUDD-WW
Description: NEO-RAY CIRQUE SUSPENDED LED LUMINAIRE
DOWNLIGHT - CURVED FROSTED LENS - 1250 LUMENS PER FOOT
UPLIGHT - CURVED FROSTED LENS - 500 LUMENS PER FOOT
Light Source: 3500K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

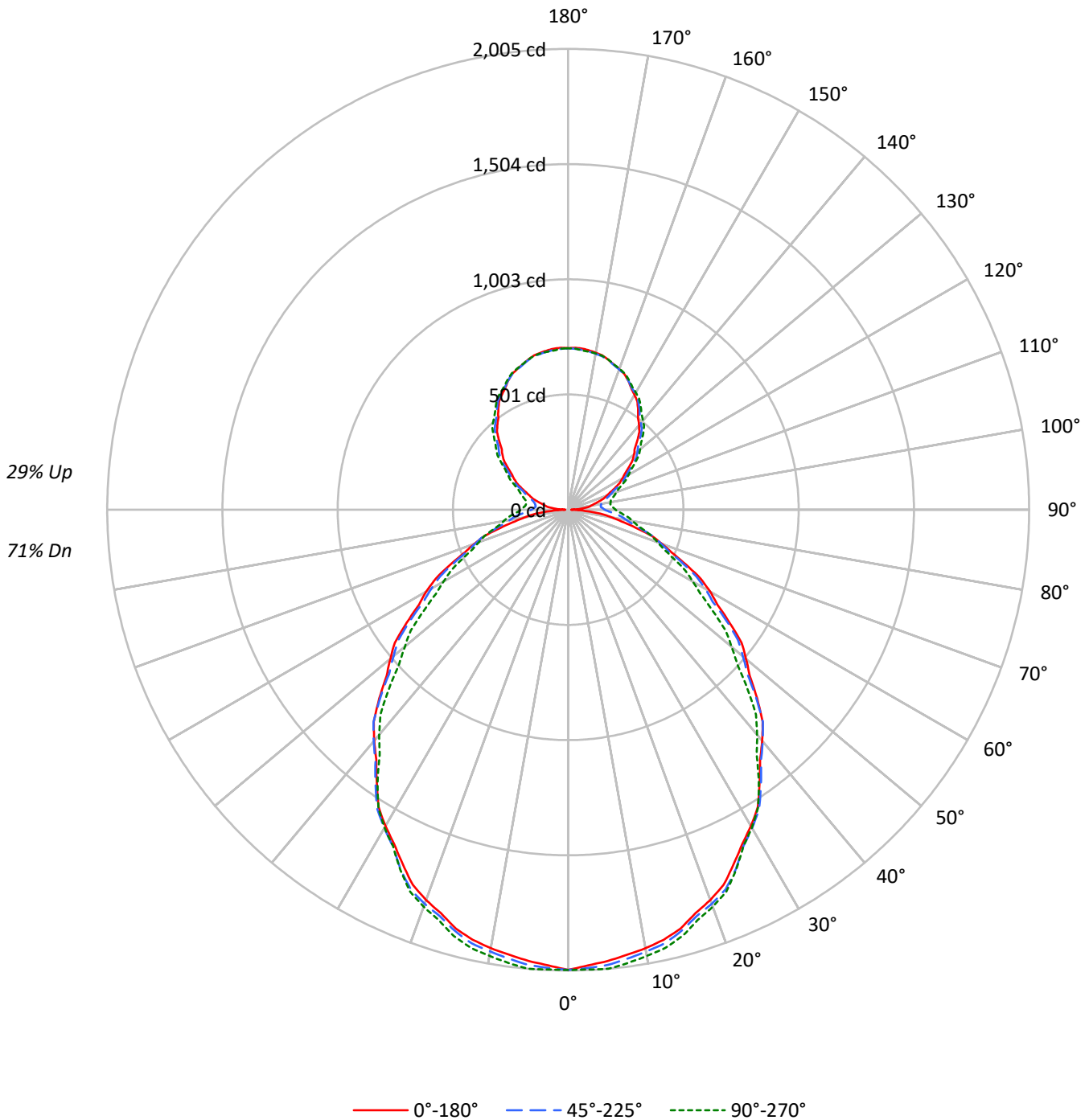
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 7236.7 lumens
Efficiency: N/A
Efficacy: 132.5 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: Semi-Direct

Input Watts (W): 54.6
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	0
RCR																		
0	112	112	112	112	106	106	106	106	95	95	95	85	85	85	76	76	76	71
1	102	97	93	89	96	92	88	85	83	80	77	74	72	70	66	64	63	59
2	93	85	78	73	88	81	75	70	73	68	64	65	61	58	58	55	53	49
3	85	75	67	61	80	71	64	59	64	58	54	58	53	49	52	48	45	42
4	78	66	58	52	73	63	56	50	57	51	46	51	47	43	46	42	39	36
5	72	59	51	45	67	57	49	43	51	45	40	46	41	37	42	38	34	31
6	66	53	45	39	62	51	43	38	46	40	35	42	37	33	38	34	30	28
7	61	48	40	34	58	46	39	33	42	36	31	38	33	29	35	30	27	25
8	57	44	36	31	54	42	35	30	39	32	28	35	30	26	32	28	24	22
9	53	40	33	27	50	39	32	27	36	29	25	32	27	23	30	25	22	20
10	50	37	30	25	47	36	29	24	33	27	23	30	25	21	27	23	20	18

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	32329	32329	32329
5°	31717	28545	27658
10°	31302	25407	23892
15°	30843	22752	20899
20°	30137	20411	18279
25°	29195	18219	15929
30°	28272	16114	13826
35°	27019	14180	11867
40°	25850	12402	10060
45°	24500	10660	8395
50°	23069	9043	6886
55°	21556	7605	5592
60°	20111	6250	4525
65°	18332	5030	3664
70°	16621	4007	3003
75°	14532	3194	2513
80°	12142	2554	2142
85°	8852	2111	1874

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 24500 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	189.0	2.6
10°-20°	536.4	7.4
20°-30°	791.9	10.9
30°-40°	910.8	12.6
40°-50°	883.7	12.2
50°-60°	741.7	10.2
60°-70°	542.5	7.5
70°-80°	349.1	4.8
80°-90°	203.7	2.8
90°-100°	146.2	2.0
100°-110°	175.6	2.4
110°-120°	239.5	3.3
120°-130°	304.6	4.2
130°-140°	342.1	4.7
140°-150°	337.7	4.7
150°-160°	285.6	3.9
160°-170°	190.2	2.6
170°-180°	66.5	0.9
0°-30°	1517.4	21.0
0°-40°	2428.2	33.6
0°-60°	4053.5	56.0
0°-90°	5148.8	71.1
90°-120°	561.3	7.8
90°-150°	1545.6	21.4
90°-180°	2088.0	28.9
0°-180°	7236.7	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2002	2002	2002	2002	2002	
5°	1971	2007	1988	1991	2005	187
15°	1886	1916	1898	1906	1920	531
25°	1702	1732	1725	1717	1728	784
35°	1451	1475	1462	1445	1445	908
45°	1162	1176	1155	1120	1103	896
55°	857	871	839	788	766	768
65°	566	573	548	518	507	563
75°	305	311	333	341	341	327
85°	93	130	203	235	241	99
90°	14	80	158	196	206	14
95°	62	74	142	181	188	59
105°	138	132	162	192	200	147
115°	225	226	241	256	259	223
125°	322	329	342	352	355	289
135°	425	434	443	454	459	328
145°	530	537	540	544	550	331
155°	619	623	620	620	624	284
165°	676	678	673	671	676	190
175°	704	707	698	695	695	67
180°	702	702	702	702	702	

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2002.3	2002.3	2002.3	2002.3	2002.3
2.5°	1984.2	2013.0	1996.1	2000.1	2002.3
5°	1971.2	2007.2	1988.2	1991.3	2005.1
7.5°	1953.1	1986.9	1970.3	1973.3	1989.3
10°	1937.3	1970.4	1952.2	1957.4	1971.2
12.5°	1916.9	1949.0	1933.5	1939.3	1953.1
15°	1886.4	1915.5	1898.4	1906.5	1920.3
17.5°	1841.1	1871.7	1854.3	1858.4	1872.2
20°	1807.2	1835.6	1824.9	1824.5	1838.3
22.5°	1766.4	1797.0	1788.7	1781.5	1797.6
25°	1702.5	1731.6	1725.2	1716.9	1728.0
27.5°	1639.2	1662.3	1650.8	1641.6	1649.9
30°	1589.4	1615.8	1599.4	1589.6	1597.9
32.5°	1535.1	1562.0	1545.1	1532.9	1536.8
35°	1450.8	1475.1	1461.5	1445.2	1445.2
37.5°	1371.1	1388.4	1376.9	1352.3	1346.2
40°	1312.2	1331.8	1315.8	1286.6	1278.3
42.5°	1251.2	1270.7	1253.1	1220.9	1208.2
45°	1162.4	1175.6	1154.6	1119.6	1103.0
47.5°	1070.7	1085.1	1056.5	1017.7	997.8
50°	1009.6	1025.7	992.1	949.7	927.6
52.5°	950.8	963.0	930.4	882.5	863.2
55°	856.9	870.9	838.6	788.0	766.0
57.5°	769.2	782.7	745.6	700.9	683.1
60°	712.7	723.9	687.4	642.8	625.6
62.5°	649.3	661.1	627.5	591.5	575.5
65°	565.6	572.8	547.6	517.5	507.3
67.5°	487.0	491.4	473.5	456.2	449.7
70°	432.7	437.1	428.4	419.1	413.1
72.5°	382.9	385.7	387.3	385.4	381.7
75°	305.4	311.3	332.7	340.6	340.9
77.5°	237.6	241.0	285.5	302.4	305.6
80°	192.3	202.5	257.0	280.6	284.4
82.5°	151.6	168.6	234.6	262.3	266.1
85°	93.3	130.2	203.3	234.9	241.4
87.5°	43.5	98.6	176.5	211.5	219.3
90°	13.7	80.4	158.5	195.8	205.9
92.5°	32.9	75.1	149.9	186.7	196.6
95°	61.8	74.4	142.2	180.8	187.9
97.5°	86.9	83.9	143.1	177.5	184.9
100°	101.8	94.8	146.5	178.8	187.2
102.5°	116.2	107.5	151.8	182.8	190.2
105°	137.9	131.5	162.5	191.9	199.6
107.5°	162.2	156.7	180.8	206.4	212.3
110°	178.5	176.3	195.8	218.0	224.4



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	198.2	196.0	213.1	230.8	237.2
115°	224.9	225.5	241.3	255.6	259.2
117.5°	252.5	256.1	270.0	281.2	284.7
120°	272.9	277.6	289.2	299.8	302.8
122.5°	292.6	296.8	310.1	320.7	323.6
125°	322.3	329.1	342.1	352.0	355.0
127.5°	352.4	361.5	373.3	383.4	387.2
130°	374.0	383.5	393.6	404.3	408.6
132.5°	392.2	401.7	412.2	424.6	429.5
135°	425.1	434.5	443.0	454.3	459.4
137.5°	457.4	466.6	473.1	482.0	488.4
140°	479.5	487.5	492.2	500.5	506.3
142.5°	499.8	507.8	511.3	518.4	524.2
145°	530.2	536.8	539.9	543.8	549.6
147.5°	558.7	565.1	566.4	569.8	573.5
150°	577.2	583.0	583.1	584.7	588.4
152.5°	594.5	599.7	598.1	599.1	603.3
155°	618.9	622.6	619.7	620.5	624.2
157.5°	638.3	642.0	637.4	638.8	641.8
160°	650.3	653.9	648.8	649.6	652.5
162.5°	661.6	664.1	659.5	658.6	662.6
165°	675.6	678.5	673.4	671.2	675.6
167.5°	687.5	690.5	683.7	681.4	685.8
170°	693.5	696.4	689.0	686.2	690.5
172.5°	698.9	701.8	693.8	690.3	693.5
175°	703.9	706.9	698.0	695.0	695.0
177.5°	705.4	707.2	700.7	697.8	701.3
180°	702.5	702.5	702.5	702.5	702.5

(END OF REPORT)