

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: P644325

Luminaire Tested: CRQ4DIP-SR4F0-50D100U940-FLLFLL-1DUDD-WW

Issue Date: 2/20/2023



Test Information

Test Method: LM-79-2019
Report Number: P644325
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-SR4F0-50D100U940-FLLFLL-1DUDD-WW
Description: NEO-RAY CIRQUE SUSPENDED LED LUMINAIRE
DOWNLIGHT - CURVED FROSTED LENS - 500 LUMENS PER FOOT
UPLIGHT - CURVED FROSTED LENS - 1000 LUMENS PER FOOT
Light Source: 4000K CCT, 90 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

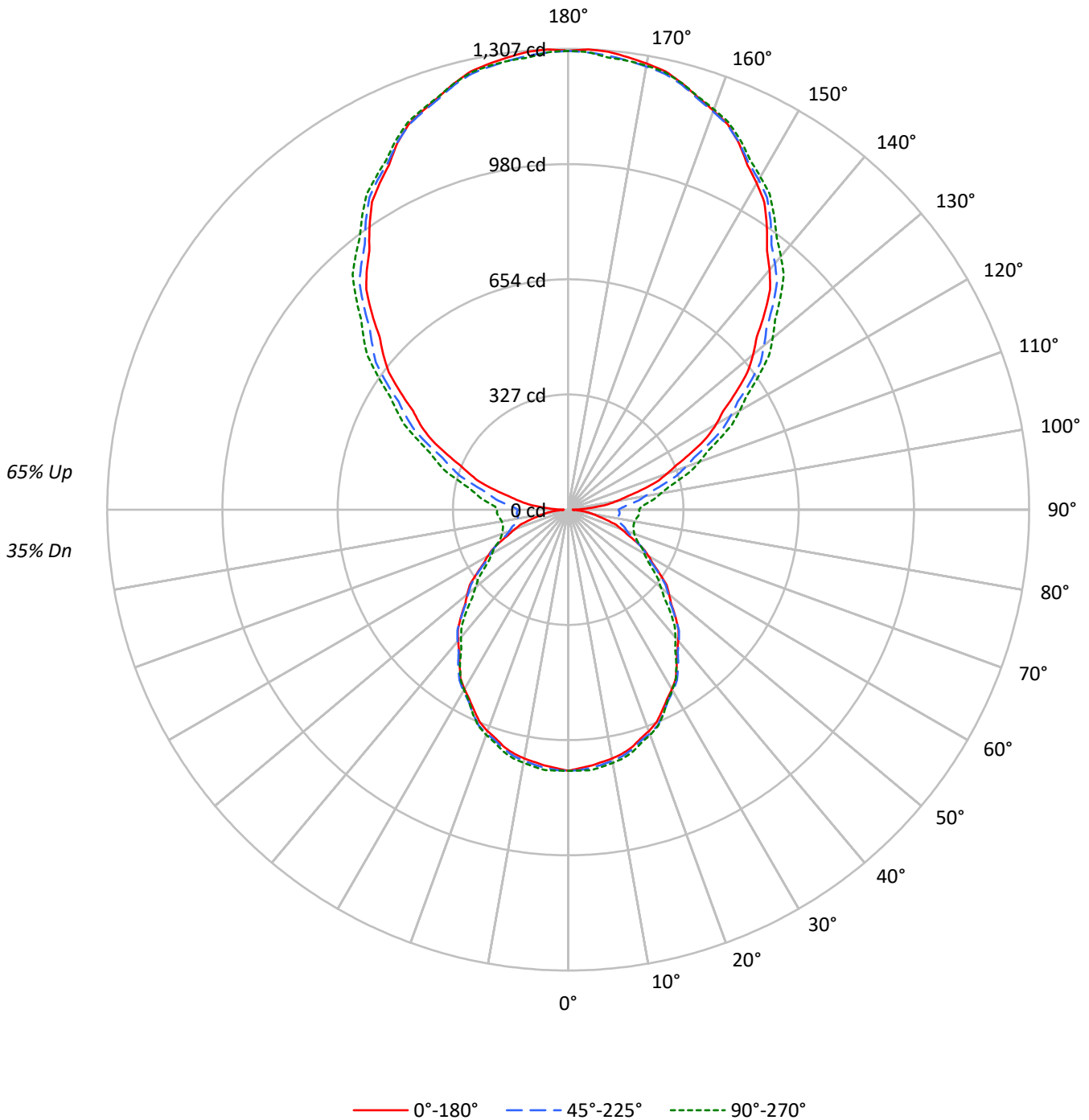
Lumens per Lamp: N/A
Luminaire Lumens: 5751.8 lumens
Efficiency: N/A
Efficacy: 132.8 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.19 / 1.3
Luminous Opening: Rectangular w/ Sides (W: 0.17' x L: 4' x H: 0.33')
CIE Type: Semi-Indirect

Input Watts (W): 43.3
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	104	104	104	104	94	94	94	94	75	75	75	58	58	58	43	43	43	35
1	94	89	85	81	84	81	77	74	65	62	60	50	48	47	36	35	34	28
2	85	78	71	66	77	70	65	60	56	53	49	44	41	39	32	30	29	23
3	78	68	61	55	70	62	55	50	50	45	41	39	35	33	28	26	24	20
4	71	60	52	46	64	55	48	43	44	39	35	34	31	28	25	23	21	17
5	65	54	46	40	58	49	42	36	39	34	30	31	27	24	23	20	18	15
6	60	48	40	34	54	44	37	32	35	30	26	28	24	21	21	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	32	26	46	36	29	24	29	24	20	23	19	17	17	15	13	10
9	48	36	28	23	43	33	26	22	27	22	18	21	17	15	16	13	12	9
10	44	33	26	21	40	30	24	19	25	20	16	20	16	13	15	12	10	8

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	11956	11956	11956
5°	11730	10555	10228
10°	11575	9409	8836
15°	11406	8426	7728
20°	11145	7561	6760
25°	10797	6738	5890
30°	10456	5981	5113
35°	9992	5276	4388
40°	9560	4597	3720
45°	9059	3953	3105
50°	8532	3375	2546
55°	7972	2832	2124
60°	7438	2351	1801
65°	6781	1962	1579
70°	6146	1657	1448
75°	5377	1489	1410
80°	4489	1439	1442
85°	3273	1515	1551

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 9059 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	69.9	1.2
10°-20°	198.5	3.5
20°-30°	293.2	5.1
30°-40°	337.7	5.9
40°-50°	327.9	5.7
50°-60°	278.0	4.8
60°-70°	215.3	3.7
70°-80°	164.4	2.9
80°-90°	143.0	2.5
90°-100°	178.0	3.1
100°-110°	291.7	5.1
110°-120°	432.0	7.5
120°-130°	559.3	9.7
130°-140°	633.0	11.0
140°-150°	625.5	10.9
150°-160°	529.0	9.2
160°-170°	352.2	6.1
170°-180°	123.2	2.1
0°-30°	561.7	9.8
0°-40°	899.4	15.6
0°-60°	1505.3	26.2
0°-90°	2027.9	35.3
90°-120°	901.6	15.7
90°-150°	2719.5	47.3
90°-180°	3724.0	64.7
0°-180°	5751.8	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	740	740	740	740	740	
5°	729	742	735	736	742	69
15°	698	710	703	705	710	196
25°	630	642	638	635	639	290
35°	536	549	544	534	534	336
45°	430	438	428	414	408	331
55°	317	326	312	295	291	284
65°	209	218	214	217	219	208
75°	113	124	155	183	191	121
85°	34	74	146	188	200	37
90°	13	67	143	186	201	11
95°	73	100	175	217	226	73
105°	214	226	280	318	324	228
115°	387	405	439	465	472	385
125°	580	601	630	652	658	520
135°	787	805	820	841	851	607
145°	982	994	1000	1007	1018	613
155°	1146	1153	1148	1149	1156	526
165°	1252	1257	1247	1243	1252	353
175°	1304	1309	1293	1287	1287	124
180°	1301	1301	1301	1301	1301	

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	740.5	740.5	740.5	740.5	740.5
2.5°	733.8	744.4	739.1	739.6	740.5
5°	729.0	742.2	735.2	736.4	741.5
7.5°	722.3	735.6	729.7	729.7	735.6
10°	716.4	728.7	723.0	723.8	729.0
12.5°	708.9	722.5	715.2	717.1	722.3
15°	697.6	710.5	703.1	705.0	710.1
17.5°	680.8	693.2	686.8	687.2	692.4
20°	668.3	679.9	676.0	674.7	679.8
22.5°	653.2	665.6	662.6	658.8	664.7
25°	629.6	642.5	638.0	634.9	639.0
27.5°	606.2	618.6	611.8	607.1	610.1
30°	587.8	599.7	593.7	587.8	590.9
32.5°	567.7	580.7	573.6	566.9	568.3
35°	536.5	548.8	543.8	534.4	534.4
37.5°	507.0	517.7	510.3	500.1	497.8
40°	485.3	496.8	487.7	475.8	472.7
42.5°	462.7	474.2	465.4	451.5	446.8
45°	429.8	438.0	428.1	414.0	407.9
47.5°	396.0	405.4	392.2	376.3	369.0
50°	373.4	382.5	370.2	351.2	343.0
52.5°	351.6	360.2	346.5	327.3	321.0
55°	316.9	326.4	312.3	294.8	291.0
57.5°	284.5	293.8	279.3	269.2	265.0
60°	263.6	272.0	258.6	252.2	249.0
62.5°	240.1	249.7	238.2	237.7	236.7
65°	209.2	218.3	213.6	216.9	218.6
67.5°	180.1	188.2	190.4	202.2	206.5
70°	160.0	168.1	177.2	193.8	199.2
72.5°	141.6	150.0	168.2	188.5	194.7
75°	113.0	123.8	155.1	182.6	191.3
77.5°	87.9	100.8	147.4	180.3	190.4
80°	71.1	90.0	144.8	180.3	191.4
82.5°	56.1	80.9	143.6	183.2	194.4
85°	34.5	74.1	145.9	187.7	199.8
87.5°	17.6	69.8	145.7	188.8	202.5
90°	12.8	66.7	142.6	186.5	201.1
92.5°	34.9	76.3	153.6	196.3	207.4
95°	72.6	100.0	175.3	217.3	226.5
97.5°	110.6	130.5	201.3	240.7	249.5
100°	138.2	154.1	221.1	259.7	267.1
102.5°	168.4	180.9	244.3	280.7	289.5
105°	213.5	226.3	280.1	317.6	323.7
107.5°	263.6	277.2	323.1	358.8	365.5
110°	297.1	313.6	354.3	387.0	394.8

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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	333.5	350.0	386.4	417.4	425.1
115°	387.2	404.7	438.6	465.0	471.7
117.5°	443.4	461.6	492.5	517.6	524.1
120°	484.5	501.4	531.5	555.4	560.8
122.5°	521.0	540.3	570.1	594.1	599.5
125°	580.2	601.1	629.5	652.1	657.5
127.5°	641.1	661.1	687.3	710.2	717.2
130°	684.5	702.0	724.9	748.9	757.0
132.5°	724.8	742.3	762.7	786.4	795.6
135°	787.3	804.9	820.5	841.4	850.9
137.5°	847.3	864.3	876.3	892.9	904.8
140°	888.2	903.0	911.7	927.1	937.9
142.5°	925.8	940.6	947.0	960.3	971.1
145°	982.1	994.3	1000.1	1007.2	1018.0
147.5°	1034.9	1046.8	1049.2	1055.5	1062.2
150°	1069.1	1079.9	1080.2	1083.1	1089.9
152.5°	1101.2	1110.9	1107.8	1109.6	1117.5
155°	1146.5	1153.2	1147.9	1149.4	1156.2
157.5°	1182.4	1189.2	1180.7	1183.4	1188.8
160°	1204.5	1211.3	1201.7	1203.2	1208.6
162.5°	1225.5	1230.1	1221.6	1219.9	1227.4
165°	1251.5	1256.9	1247.3	1243.4	1251.5
167.5°	1273.6	1279.0	1266.4	1262.1	1270.3
170°	1284.6	1290.0	1276.3	1271.0	1279.1
172.5°	1294.6	1300.0	1285.2	1278.7	1284.6
175°	1304.0	1309.4	1292.9	1287.4	1287.4
177.5°	1306.7	1310.0	1297.9	1292.5	1299.0
180°	1301.2	1301.2	1301.2	1301.2	1301.2

(END OF REPORT)