

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: P644434

Luminaire Tested: CRQ4DIP-SR4F0-75D25U940-FLLOOB-1DUDD-WW

Issue Date: 2/20/2023



Test Information

Test Method: LM-79-2019
Report Number: P644434
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-SR4F0-75D25U940-FLLOOB-1DUDD-WW
Description: NEO-RAY CIRQUE SUSPENDED LED LUMINAIRE
DOWNLIGHT - CURVED FROSTED LENS - 750 LUMENS PER FOOT
UPLIGHT - BATWING OPTIC - 250 LUMENS PER FOOT
Light Source: 4000K CCT, 90 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

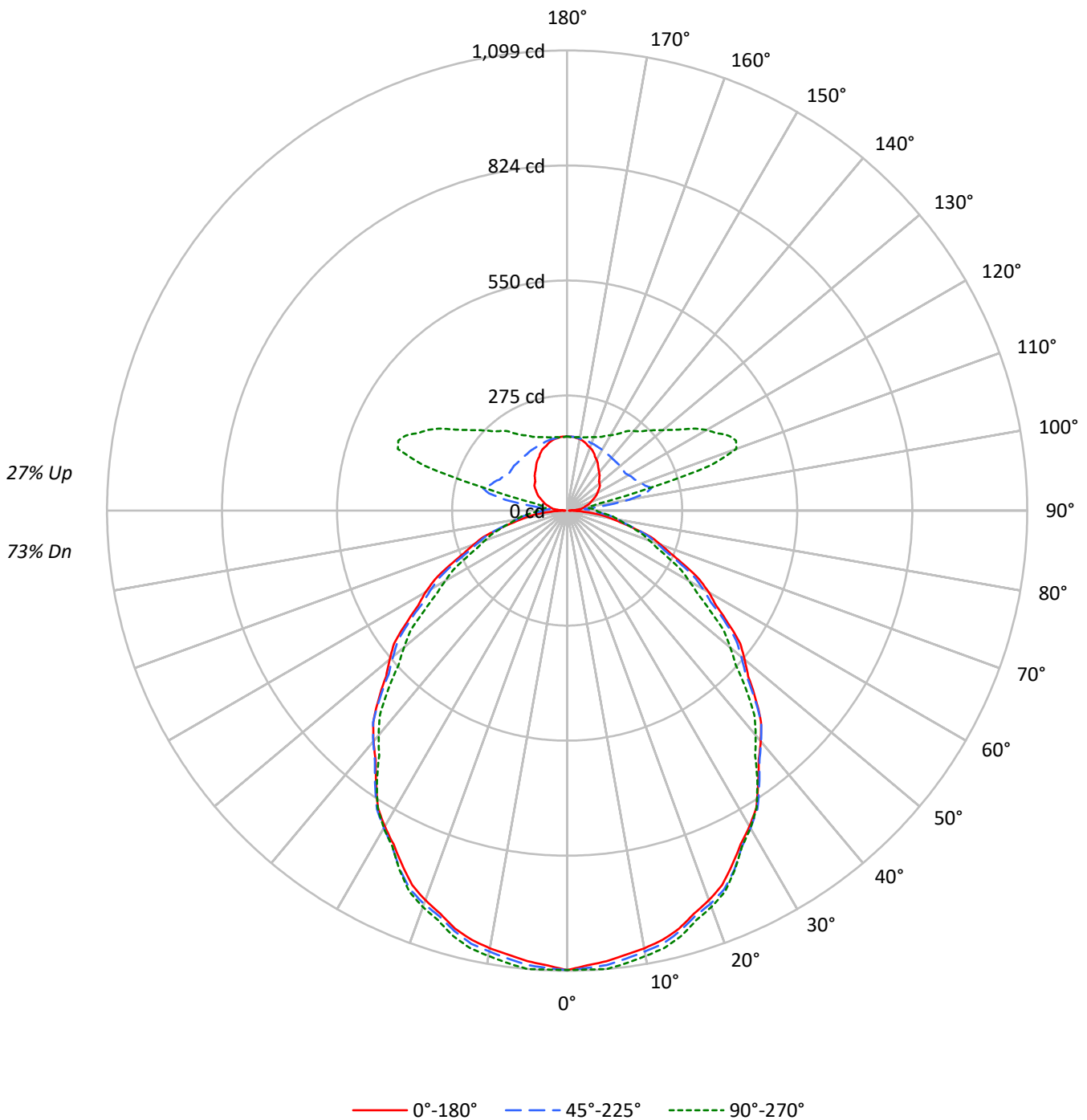
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3778.7 lumens
Efficiency: N/A
Efficacy: 125.5 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): 30.1
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	50	30	10	50	30	10	50	30	10	0																			
RCR																																														
0	113	113	113	113	107	107	107	107	96	96	96	87	87	87	78	78	78	73																												
1	103	98	94	90	97	93	90	86	84	81	79	76	74	72	68	67	65	61																												
2	94	86	79	74	89	82	76	71	74	69	65	67	63	60	60	57	55	51																												
3	86	76	68	62	81	72	65	60	65	60	55	59	55	51	53	50	47	44																												
4	78	67	59	53	74	64	57	51	58	52	47	53	48	44	48	44	41	38																												
5	72	60	52	45	68	57	50	44	52	46	41	48	42	38	43	39	36	33																												
6	67	54	46	40	63	52	44	38	47	41	36	43	38	34	39	35	31	29																												
7	62	49	41	35	59	47	39	34	43	37	32	39	34	30	36	32	28	26																												
8	58	45	37	31	55	43	35	30	39	33	29	36	31	27	33	29	25	23																												
9	54	41	33	28	51	39	32	27	36	30	26	33	28	24	31	26	23	21																												
10	50	38	30	25	48	36	29	25	34	28	23	31	26	22	29	24	21	19																												

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	17715	17715	17715
5°	17379	15641	15155
10°	17151	13916	13091
15°	16900	12462	11451
20°	16513	11179	10016
25°	15998	9983	8729
30°	15491	8822	7576
35°	14806	7758	6503
40°	14166	6792	5513
45°	13424	5838	4600
50°	12640	4944	3774
55°	11813	4160	3043
60°	11019	3410	2433
65°	10044	2719	1925
70°	9108	2131	1521
75°	7966	1637	1199
80°	6655	1217	934
85°	4848	885	710

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 13424 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	103.6	2.7
10°-20°	293.9	7.8
20°-30°	433.8	11.5
30°-40°	498.8	13.2
40°-50°	483.8	12.8
50°-60°	405.0	10.7
60°-70°	291.8	7.7
70°-80°	178.3	4.7
80°-90°	87.0	2.3
90°-100°	56.0	1.5
100°-110°	167.3	4.4
110°-120°	214.6	5.7
120°-130°	172.9	4.6
130°-140°	137.9	3.6
140°-150°	108.5	2.9
150°-160°	79.4	2.1
160°-170°	49.3	1.3
170°-180°	16.8	0.4
0°-30°	831.2	22.0
0°-40°	1330.0	35.2
0°-60°	2218.8	58.7
0°-90°	2775.9	73.5
90°-120°	438.0	11.6
90°-150°	857.3	22.7
90°-180°	1003.0	26.5
0°-180°	3778.7	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1097	1097	1097	1097	1097	
5°	1080	1100	1089	1091	1099	102
15°	1034	1049	1040	1045	1052	291
25°	933	948	945	941	947	430
35°	795	807	800	792	792	498
45°	637	643	632	614	604	491
55°	470	476	459	430	417	421
65°	310	312	296	274	266	308
75°	167	167	170	166	163	179
85°	51	62	85	91	91	54
90°	5	32	58	68	70	6
95°	24	30	41	54	57	23
105°	50	59	209	271	187	53
115°	72	79	177	364	424	71
125°	94	103	165	286	338	83
135°	109	121	165	235	270	84
145°	129	140	166	205	227	81
155°	151	157	169	186	195	69
165°	168	170	174	178	181	47
175°	177	178	177	176	175	17
180°	177	177	177	177	177	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1097.2	1097.2	1097.2	1097.2	1097.2
2.5°	1087.3	1103.0	1093.5	1096.0	1097.2
5°	1080.1	1099.8	1089.4	1091.1	1098.7
7.5°	1070.2	1088.4	1079.2	1081.3	1090.0
10°	1061.5	1079.7	1069.3	1072.6	1080.1
12.5°	1050.4	1067.3	1059.4	1062.6	1070.2
15°	1033.6	1048.8	1039.8	1044.7	1052.2
17.5°	1008.8	1025.2	1015.7	1018.3	1025.9
20°	990.2	1005.4	999.5	999.7	1007.3
22.5°	967.9	984.3	979.7	976.2	985.0
25°	932.9	948.1	945.3	940.8	946.9
27.5°	898.2	909.4	904.1	899.5	904.1
30°	870.9	884.6	875.6	871.0	875.6
32.5°	841.2	854.8	845.8	840.0	842.1
35°	795.0	807.1	799.6	791.9	791.9
37.5°	751.3	759.2	754.1	741.0	737.6
40°	719.1	728.1	720.6	705.0	700.5
42.5°	685.6	694.7	685.9	669.0	662.0
45°	636.9	643.0	632.3	613.5	604.4
47.5°	586.7	593.1	578.3	557.6	546.7
50°	553.2	560.8	542.4	520.4	508.3
52.5°	521.0	526.2	508.9	483.3	472.3
55°	469.6	475.6	458.7	430.5	416.9
57.5°	421.5	427.3	407.3	380.4	369.8
60°	390.5	395.1	375.0	346.9	336.3
62.5°	355.8	360.4	341.6	317.1	306.5
65°	309.9	311.5	296.0	274.1	266.5
67.5°	266.9	266.9	253.8	237.6	231.5
70°	237.1	237.1	227.8	215.3	209.2
72.5°	209.8	208.6	203.0	194.2	189.4
75°	167.4	167.4	170.5	165.7	162.7
77.5°	130.2	127.7	141.0	140.4	138.9
80°	105.4	105.4	122.4	125.5	124.0
82.5°	83.1	85.5	107.5	111.9	110.3
85°	51.1	61.7	85.2	91.4	91.4
87.5°	23.2	41.9	67.4	75.7	76.0
90°	4.6	31.5	58.0	68.5	70.0
92.5°	12.3	27.0	50.8	62.1	65.7
95°	24.4	30.5	41.4	53.5	57.2
97.5°	34.4	40.9	88.9	51.9	51.1
100°	39.7	47.6	149.8	65.0	55.0
102.5°	43.8	52.6	191.1	123.3	79.1
105°	50.0	59.4	209.0	271.1	187.2
107.5°	56.1	61.2	196.5	382.9	360.7
110°	60.2	65.7	189.9	399.4	430.3



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	65.5	71.0	184.6	385.8	436.7
115°	72.0	79.0	176.6	363.6	424.5
117.5°	78.4	87.0	174.2	338.5	401.1
120°	83.4	92.3	169.5	319.5	384.7
122.5°	87.8	96.4	165.0	304.3	364.3
125°	94.0	103.0	165.0	285.8	338.0
127.5°	98.6	109.6	165.2	264.5	316.0
130°	100.9	114.0	166.1	250.2	299.1
132.5°	102.9	116.0	164.9	243.8	284.0
135°	109.0	120.9	164.6	235.4	270.2
137.5°	114.5	127.4	164.6	226.2	256.0
140°	119.0	130.9	164.6	220.8	248.0
142.5°	123.4	134.5	165.5	214.5	240.0
145°	129.0	139.9	165.7	205.1	226.8
147.5°	135.7	145.2	167.0	198.3	215.0
150°	140.1	148.8	167.9	193.8	207.9
152.5°	144.6	152.4	167.9	190.2	201.7
155°	151.2	156.7	169.0	185.9	194.6
157.5°	156.6	161.8	170.3	183.2	189.5
160°	160.1	164.5	171.2	181.4	186.8
162.5°	162.8	167.1	172.1	180.4	184.1
165°	167.9	170.1	173.5	178.0	181.2
167.5°	170.8	172.7	174.6	176.8	178.8
170°	173.5	174.5	174.6	176.8	177.9
172.5°	174.4	176.3	175.5	175.9	177.0
175°	176.8	177.9	176.8	175.7	174.6
177.5°	176.8	177.7	176.8	176.8	175.9
180°	176.8	176.8	176.8	176.8	176.8

(END OF REPORT)