

Scaled data based on original data using
LM-79-08 Approved Method: Electrical and Photometric Measurements of Solid-State
Lighting Products

Test Report Prepared for

Cooper Lighting Solutions

(formerly Eaton)

Brand: FAIL-SAFE

Report Number: P485742

Luminaire Tested: **ORLG-24-2-INS-89BC-LD4-4HI-40-120-EDD-90**

Issue Date: 3/1/2021

This test was performed under the Supervised Manufacturer's Testing Program. The results of this test have not been influenced by sources from within Cooper Lighting Solutions or from external interests.



Test Information

Test Method: LM-79-08
Report Number: P485742
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P35357)
Test Lab: INNOVATION CENTER
Issue Date: 3/1/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: FAIL-SAFE
Catalog Number: ORLG-24-2-INS-89BC-LD4-4HI-40-120-EDD-90
Description: 2X2 ORL LED LUMINAIRE WITH 89BC LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

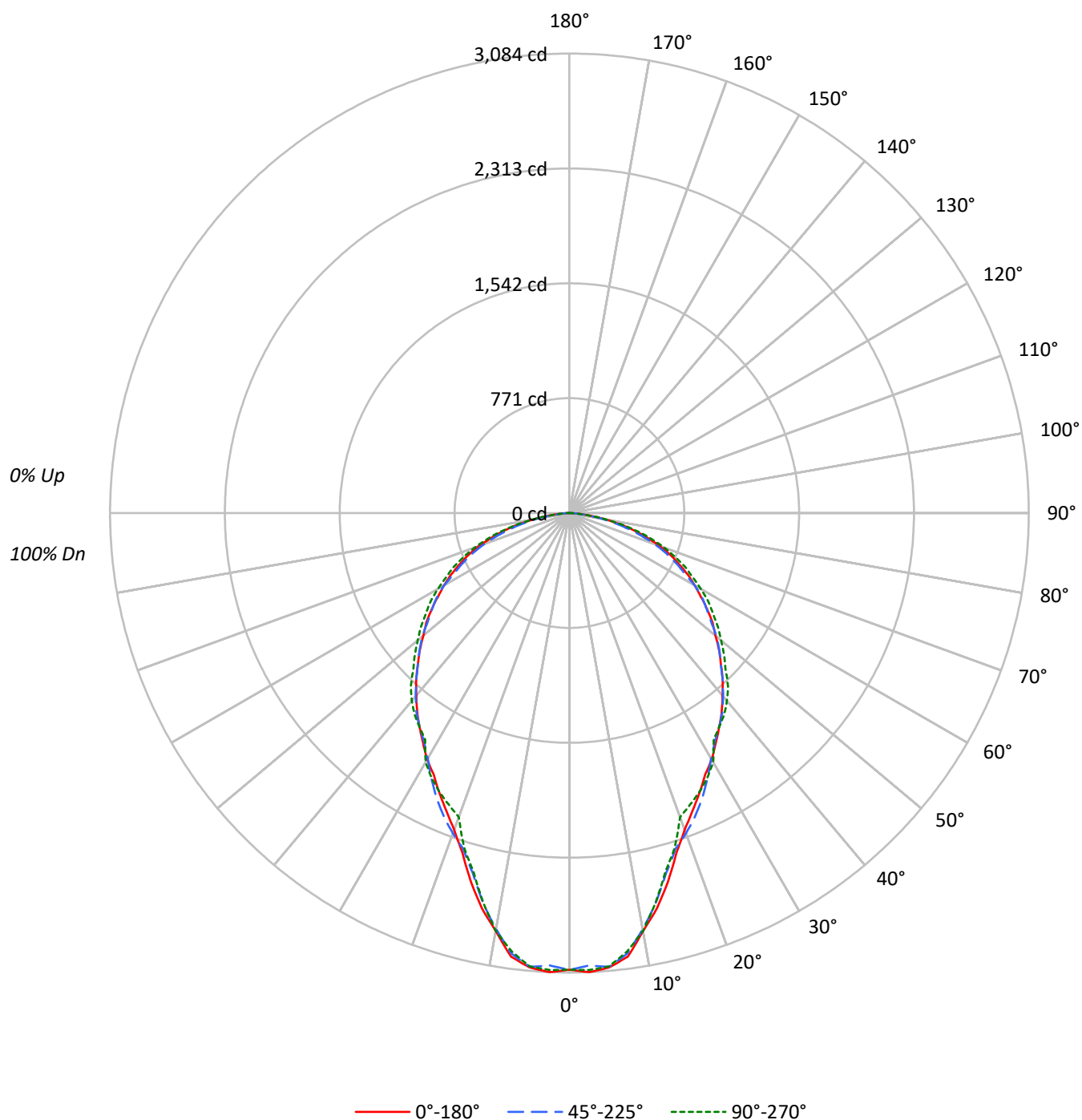
Lumens per Lamp: N/A
Luminaire Lumens: 6554.2 lumens
Efficiency: N/A
Efficacy: 74.5 lumens/watt
Spacing Criteria (0/90/45): 0.94 / 0.94 / 1.15
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

Input Watts (W): 88
Input Voltage (V): NR
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: 25 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			
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	0		
RCR																				
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100		
1	109	104	100	96	106	102	98	95	98	95	92	94	91	89	90	88	86	84		
2	99	91	84	79	97	89	83	78	86	81	76	82	78	74	79	76	73	70		
3	91	80	72	66	88	79	71	65	76	69	64	73	67	63	70	66	62	60		
4	83	71	63	56	81	70	62	56	67	60	55	65	59	54	63	58	53	51		
5	77	64	55	48	75	63	54	48	61	53	48	59	52	47	57	51	47	45		
6	71	58	49	43	69	57	48	42	55	48	42	53	47	42	52	46	41	39		
7	66	53	44	38	64	52	44	38	50	43	37	49	42	37	47	41	37	35		
8	61	48	40	34	60	47	39	34	46	39	34	45	38	33	44	38	33	31		
9	58	44	36	31	56	44	36	31	43	35	30	41	35	30	40	35	30	28		
10	54	41	33	28	53	40	33	28	40	33	28	39	32	28	38	32	28	26		

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	8247	8247	8247
5°	8270	8257	8248
10°	7782	7747	7778
15°	7131	6975	6935
20°	6476	6549	6216
25°	6142	6265	6133
30°	5933	5908	5997
35°	5759	5759	5759
40°	5615	5638	5778
45°	5477	5471	5640
50°	5357	5398	5564
55°	5301	5279	5518
60°	5232	5224	5490
65°	5165	5003	5459
70°	5066	4777	5316
75°	4689	4242	4921
80°	3803	3457	3902
85°	2411	2164	2115



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	284.6	4.3
10°-20°	711.6	10.9
20°-30°	961.1	14.7
30°-40°	1100.5	16.8
40°-50°	1127.3	17.2
50°-60°	1022.9	15.6
60°-70°	798.3	12.2
70°-80°	452.8	6.9
80°-90°	95.0	1.4
90°-100°	0.0	0.0
100°-110°	0.0	0.0
110°-120°	0.0	0.0
120°-130°	0.0	0.0
130°-140°	0.0	0.0
140°-150°	0.0	0.0
150°-160°	0.0	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-30°	1957.3	29.9
0°-40°	3057.9	46.7
0°-60°	5208.1	79.5
0°-90°	6554.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	6554.2	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	3065	3065	3065	3065	3065	
5°	3062	3026	3057	3063	3054	286
15°	2560	2568	2504	2516	2489	715
25°	2069	2096	2110	2059	2065	955
35°	1753	1756	1753	1755	1753	1098
45°	1439	1450	1438	1496	1482	1113
55°	1130	1128	1125	1165	1176	1010
65°	811	794	786	822	857	804
75°	451	418	408	432	473	472
85°	78	70	70	65	68	103
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	3064.7	3064.7	3064.7	3064.7	3064.7
2.5°	3083.8	3059.9	3039.2	3072.7	3069.5
5°	3061.5	3026.4	3056.7	3063.1	3053.5
7.5°	3002.5	2980.2	2981.8	2969.1	2967.5
10°	2847.9	2860.7	2835.2	2857.5	2846.4
12.5°	2715.7	2723.6	2679.0	2688.6	2675.8
15°	2559.5	2567.5	2503.7	2516.5	2489.4
17.5°	2389.0	2417.6	2365.1	2381.0	2352.3
20°	2261.5	2285.4	2287.0	2261.5	2170.6
22.5°	2161.1	2185.0	2204.1	2127.6	2118.0
25°	2068.6	2095.7	2110.1	2059.1	2065.4
27.5°	1976.2	2006.5	2006.5	2017.6	2003.3
30°	1909.3	1922.0	1901.3	1942.7	1930.0
32.5°	1829.6	1834.4	1816.8	1847.1	1802.5
35°	1753.1	1756.3	1753.1	1754.7	1753.1
37.5°	1679.8	1671.8	1686.1	1676.6	1706.9
40°	1598.5	1598.5	1604.9	1620.8	1644.7
42.5°	1523.6	1530.0	1522.0	1566.6	1576.2
45°	1439.1	1450.3	1437.5	1496.5	1482.1
47.5°	1362.6	1367.4	1364.2	1404.1	1407.2
50°	1279.7	1286.1	1289.3	1324.4	1329.1
52.5°	1211.2	1209.6	1198.5	1249.5	1257.4
55°	1129.9	1128.3	1125.2	1165.0	1176.2
57.5°	1047.1	1048.7	1056.6	1078.9	1106.0
60°	972.2	964.2	970.6	997.7	1020.0
62.5°	895.7	881.3	867.0	911.6	932.3
65°	811.2	793.7	785.7	822.4	857.4
67.5°	733.1	704.4	699.6	725.1	766.6
70°	643.9	608.8	607.2	626.3	675.7
72.5°	545.0	514.8	506.8	532.3	576.9
75°	451.0	417.6	408.0	431.9	473.3
77.5°	349.0	321.9	315.6	328.3	361.8
80°	245.4	229.5	223.1	227.9	251.8
82.5°	154.6	143.4	140.2	138.7	151.4
85°	78.1	70.1	70.1	65.3	68.5
87.5°	23.9	22.3	20.7	15.9	17.5
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)