

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: P485816

Luminaire Tested: **ORLG-24-2-INS-89BC-LD4-6HI-50-120-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: P485816
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-LD4-6HI-50-120-EDD-90
Description: 2X2 ORL LED LUMINAIRE WITH 89BC LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

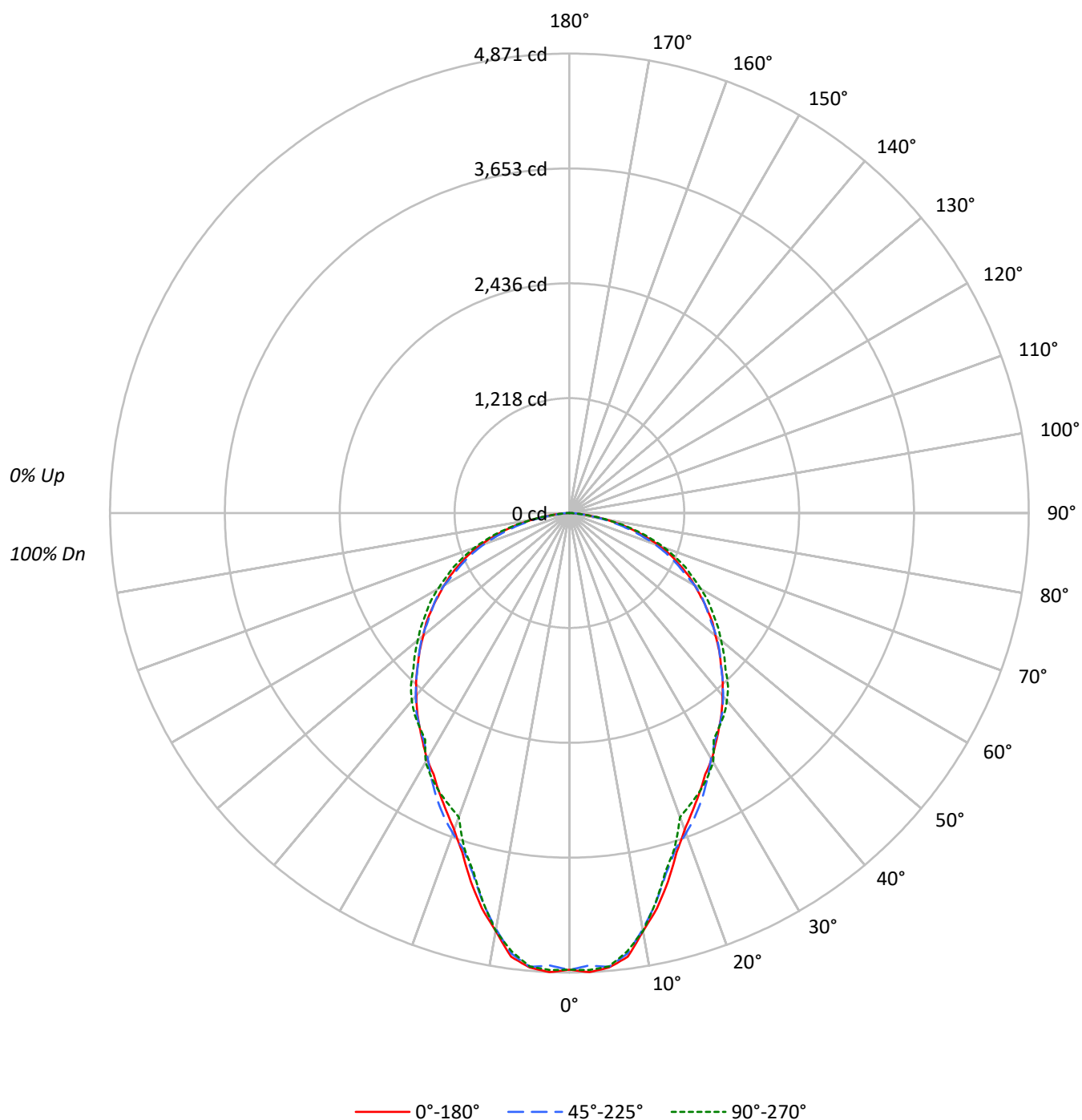
Lumens per Lamp: N/A
Luminaire Lumens: 10352.3 lumens
Efficiency: N/A
Efficacy: 78.4 lumens/watt
Spacing Criteria (0/90/45): 0.94 / 0.94 / 1.15
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

Input Watts (W): 132
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					0
RW	70	50	30	10	70	50	30	10		50	30	10		50	30	10		50	30	10
RCR																				
0	119	119	119	119	116	116	116	116		111	111	111		106	106	106		102	102	102
1	109	104	100	96	106	102	98	95		98	95	92		94	91	89		90	88	86
2	99	91	84	79	97	89	83	78		86	81	76		82	78	74		79	76	73
3	91	80	72	66	88	79	71	65		76	69	64		73	67	63		70	66	62
4	83	71	63	56	81	70	62	56		67	60	55		65	59	54		63	58	53
5	77	64	55	48	75	63	54	48		61	53	48		59	52	47		57	51	47
6	71	58	49	43	69	57	48	42		55	48	42		53	47	42		52	46	41
7	66	53	44	38	64	52	44	38		50	43	37		49	42	37		47	41	37
8	61	48	40	34	60	47	39	34		46	39	34		45	38	33		44	38	33
9	58	44	36	31	56	44	36	31		43	35	30		41	35	30		40	35	30
10	54	41	33	28	53	40	33	28		40	33	28		39	32	28		38	32	28

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	13026	13026	13026
5°	13062	13042	13028
10°	12292	12237	12285
15°	11263	11017	10954
20°	10229	10344	9818
25°	9701	9896	9686
30°	9371	9331	9472
35°	9096	9096	9096
40°	8869	8905	9126
45°	8651	8641	8909
50°	8462	8525	8789
55°	8373	8338	8716
60°	8264	8251	8670
65°	8159	7902	8623
70°	8002	7546	8397
75°	7407	6700	7773
80°	6008	5461	6163
85°	3807	3421	3341



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	449.6	4.3
10°-20°	1124.0	10.9
20°-30°	1518.0	14.7
30°-40°	1738.3	16.8
40°-50°	1780.6	17.2
50°-60°	1615.6	15.6
60°-70°	1261.0	12.2
70°-80°	715.2	6.9
80°-90°	150.1	1.5
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°	3091.6	29.9
0°-40°	4829.9	46.7
0°-60°	8226.0	79.5
0°-90°	10352.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	10352.3	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	4841	4841	4841	4841	4841	
5°	4836	4780	4828	4838	4823	452
15°	4043	4055	3955	3975	3932	1130
25°	3267	3310	3333	3252	3262	1508
35°	2769	2774	2769	2772	2769	1735
45°	2273	2291	2270	2364	2341	1757
55°	1785	1782	1777	1840	1858	1595
65°	1281	1254	1241	1299	1354	1270
75°	712	660	644	682	748	745
85°	123	111	111	103	108	163
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	4840.7	4840.7	4840.7	4840.7	4840.7
2.5°	4870.9	4833.1	4800.4	4853.2	4848.2
5°	4835.6	4780.2	4828.1	4838.1	4823.0
7.5°	4742.5	4707.2	4709.8	4689.6	4687.1
10°	4498.3	4518.4	4478.2	4513.4	4495.8
12.5°	4289.4	4302.0	4231.5	4246.6	4226.4
15°	4042.7	4055.3	3954.6	3974.7	3931.9
17.5°	3773.3	3818.7	3735.6	3760.8	3715.4
20°	3572.0	3609.7	3612.2	3572.0	3428.5
22.5°	3413.4	3451.1	3481.3	3360.5	3345.4
25°	3267.4	3310.2	3332.8	3252.3	3262.3
27.5°	3121.4	3169.2	3169.2	3186.8	3164.2
30°	3015.7	3035.8	3003.1	3068.5	3048.4
32.5°	2889.8	2897.3	2869.7	2917.5	2847.0
35°	2769.0	2774.0	2769.0	2771.5	2769.0
37.5°	2653.2	2640.6	2663.2	2648.1	2696.0
40°	2524.8	2524.8	2534.9	2560.0	2597.8
42.5°	2406.5	2416.5	2404.0	2474.4	2489.5
45°	2273.1	2290.7	2270.5	2363.7	2341.0
47.5°	2152.2	2159.8	2154.8	2217.7	2222.7
50°	2021.3	2031.4	2036.4	2091.8	2099.4
52.5°	1913.1	1910.6	1893.0	1973.5	1986.1
55°	1784.7	1782.2	1777.2	1840.1	1857.7
57.5°	1653.8	1656.3	1668.9	1704.2	1747.0
60°	1535.5	1522.9	1533.0	1575.8	1611.0
62.5°	1414.7	1392.0	1369.4	1439.9	1472.6
65°	1281.3	1253.6	1241.0	1298.9	1354.3
67.5°	1157.9	1112.6	1105.1	1145.3	1210.8
70°	1017.0	961.6	959.1	989.3	1067.3
72.5°	860.9	813.1	800.5	840.8	911.2
75°	712.4	659.5	644.4	682.2	747.6
77.5°	551.3	508.5	498.4	518.6	571.4
80°	387.7	362.5	352.4	360.0	397.7
82.5°	244.2	226.6	221.5	219.0	239.1
85°	123.3	110.8	110.8	103.2	108.2
87.5°	37.8	35.2	32.7	25.2	27.7
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)