

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: P486966

Luminaire Tested: **ORLG-24-4-INS-89BC-LD4-2HI-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: P486966
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-24-4-INS-89BC-LD4-2HI-40-120-EDD-90
Description: 2X4 ORL LED LUMINAIRE WITH 89BC LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

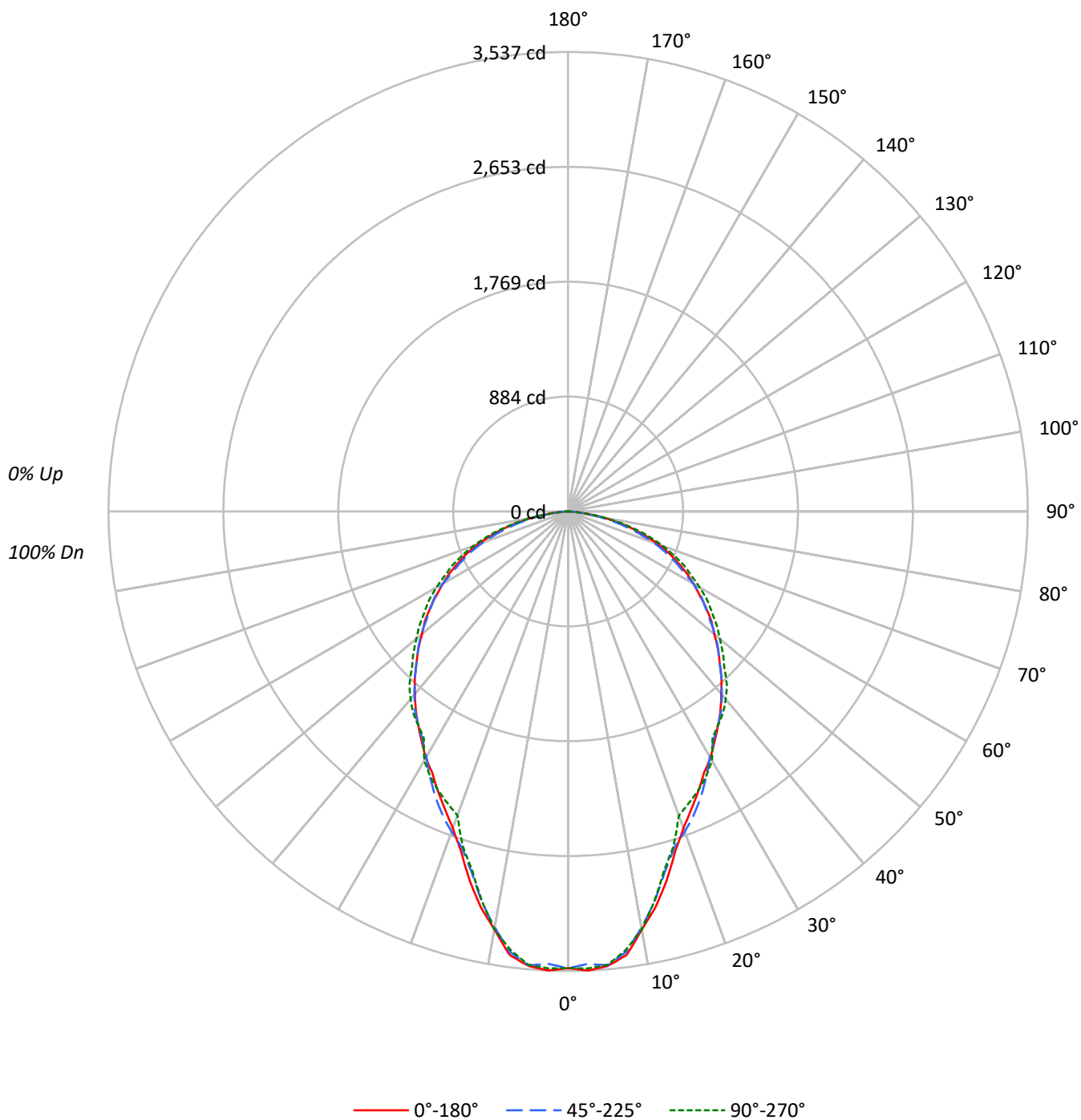
Lumens per Lamp: N/A
Luminaire Lumens: 7516.7 lumens
Efficiency: N/A
Efficacy: 85.4 lumens/watt
Spacing Criteria (0/90/45): 0.94 / 0.94 / 1.15
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

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				0
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°	4729	4729	4729
5°	4742	4735	4730
10°	4462	4442	4460
15°	4089	4000	3977
20°	3714	3755	3564
25°	3522	3593	3517
30°	3402	3388	3439
35°	3302	3302	3302
40°	3220	3233	3313
45°	3141	3137	3234
50°	3072	3095	3191
55°	3040	3027	3164
60°	3000	2995	3148
65°	2962	2869	3131
70°	2905	2740	3049
75°	2689	2432	2822
80°	2181	1983	2238
85°	1383	1241	1213



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	326.4	4.3
10°-20°	816.1	10.9
20°-30°	1102.2	14.7
30°-40°	1262.2	16.8
40°-50°	1292.8	17.2
50°-60°	1173.1	15.6
60°-70°	915.6	12.2
70°-80°	519.3	6.9
80°-90°	109.0	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°	2244.8	29.9
0°-40°	3506.9	46.7
0°-60°	5972.8	79.5
0°-90°	7516.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	7516.7	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	3515	3515	3515	3515	3515	
5°	3511	3471	3506	3513	3502	328
15°	2935	2944	2871	2886	2855	820
25°	2372	2404	2420	2361	2369	1095
35°	2010	2014	2010	2012	2010	1259
45°	1650	1663	1649	1716	1700	1276
55°	1296	1294	1290	1336	1349	1158
65°	930	910	901	943	983	922
75°	517	479	468	495	543	541
85°	90	80	80	75	79	118
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	3514.7	3514.7	3514.7	3514.7	3514.7
2.5°	3536.7	3509.3	3485.5	3523.9	3520.2
5°	3511.1	3470.9	3505.6	3512.9	3502.0
7.5°	3443.5	3417.9	3419.7	3405.1	3403.3
10°	3266.2	3280.8	3251.6	3277.1	3264.3
12.5°	3114.5	3123.6	3072.4	3083.4	3068.8
15°	2935.4	2944.5	2871.4	2886.0	2854.9
17.5°	2739.8	2772.7	2712.4	2730.6	2697.7
20°	2593.6	2621.0	2622.8	2593.6	2489.4
22.5°	2478.4	2505.8	2527.8	2440.0	2429.1
25°	2372.4	2403.5	2419.9	2361.4	2368.8
27.5°	2266.4	2301.1	2301.1	2313.9	2297.5
30°	2189.6	2204.3	2180.5	2228.0	2213.4
32.5°	2098.2	2103.7	2083.6	2118.4	2067.2
35°	2010.5	2014.2	2010.5	2012.3	2010.5
37.5°	1926.4	1917.3	1933.8	1922.8	1957.5
40°	1833.2	1833.2	1840.5	1858.8	1886.2
42.5°	1747.3	1754.6	1745.5	1796.7	1807.6
45°	1650.5	1663.2	1648.6	1716.2	1699.8
47.5°	1562.7	1568.2	1564.5	1610.2	1613.9
50°	1467.7	1475.0	1478.6	1518.9	1524.3
52.5°	1389.1	1387.3	1374.5	1432.9	1442.1
55°	1295.9	1294.0	1290.4	1336.1	1348.9
57.5°	1200.8	1202.7	1211.8	1237.4	1268.5
60°	1114.9	1105.8	1113.1	1144.2	1169.8
62.5°	1027.2	1010.7	994.3	1045.5	1069.2
65°	930.3	910.2	901.1	943.1	983.3
67.5°	840.8	807.9	802.4	831.6	879.1
70°	738.4	698.2	696.4	718.3	775.0
72.5°	625.1	590.4	581.2	610.5	661.6
75°	517.3	478.9	467.9	495.3	542.8
77.5°	400.3	369.2	361.9	376.5	414.9
80°	281.5	263.2	255.9	261.4	288.8
82.5°	177.3	164.5	160.8	159.0	173.6
85°	89.6	80.4	80.4	74.9	78.6
87.5°	27.4	25.6	23.8	18.3	20.1
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)