

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: P486994

Luminaire Tested: **ORLG-24-4-INS-89BC-LD4-3HI-20-120-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: P486994
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-LD4-3HI-20-120-EDD-90
Description: 2X4 ORL LED LUMINAIRE WITH 89BC LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

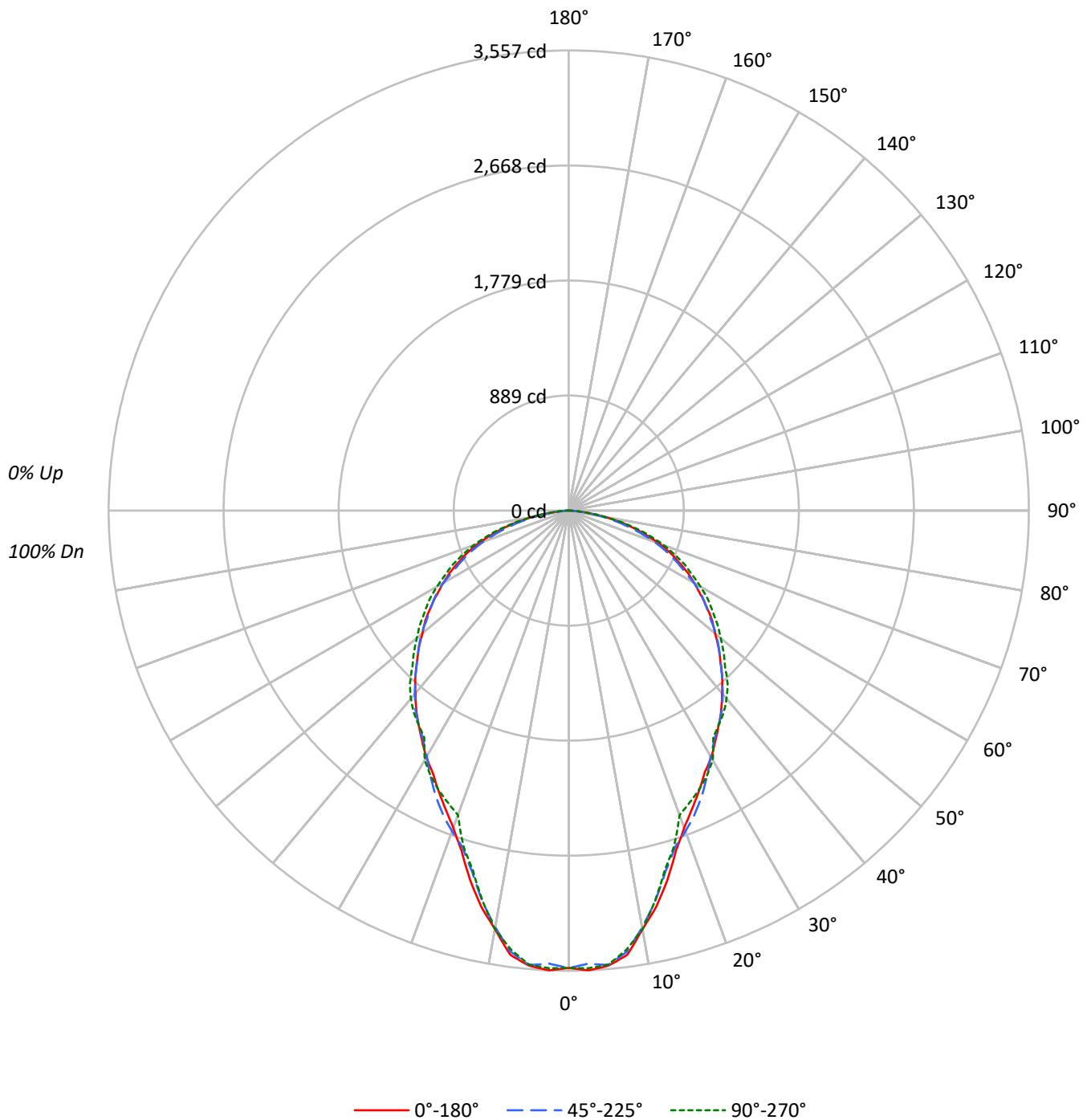
Lumens per Lamp: N/A
Luminaire Lumens: 7559.7 lumens
Efficiency: N/A
Efficacy: 57.3 lumens/watt
Spacing Criteria (0/90/45): 0.94 / 0.94 / 1.15
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 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°	4756	4756	4756
5°	4769	4762	4757
10°	4488	4468	4485
15°	4112	4023	4000
20°	3735	3777	3585
25°	3542	3613	3537
30°	3421	3407	3459
35°	3321	3321	3321
40°	3238	3251	3332
45°	3158	3155	3253
50°	3090	3113	3209
55°	3057	3044	3182
60°	3017	3013	3166
65°	2979	2885	3149
70°	2921	2755	3066
75°	2704	2446	2838
80°	2194	1994	2250
85°	1391	1249	1220



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	328.3	4.3
10°-20°	820.8	10.9
20°-30°	1108.5	14.7
30°-40°	1269.4	16.8
40°-50°	1300.3	17.2
50°-60°	1179.8	15.6
60°-70°	920.8	12.2
70°-80°	522.3	6.9
80°-90°	109.6	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°	2257.6	29.9
0°-40°	3527.0	46.7
0°-60°	6007.0	79.5
0°-90°	7559.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	7559.7	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	3535	3535	3535	3535	3535	
5°	3531	3491	3526	3533	3522	330
15°	2952	2961	2888	2902	2871	825
25°	2386	2417	2434	2375	2382	1101
35°	2022	2026	2022	2024	2022	1267
45°	1660	1673	1658	1726	1710	1283
55°	1303	1301	1298	1344	1357	1165
65°	936	915	906	948	989	927
75°	520	482	471	498	546	544
85°	90	81	81	75	79	119
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	3534.9	3534.9	3534.9	3534.9	3534.9
2.5°	3556.9	3529.3	3505.4	3544.0	3540.4
5°	3531.2	3490.7	3525.7	3533.0	3522.0
7.5°	3463.2	3437.4	3439.3	3424.6	3422.7
10°	3284.9	3299.6	3270.2	3295.9	3283.0
12.5°	3132.3	3141.5	3090.0	3101.0	3086.3
15°	2952.1	2961.3	2887.8	2902.5	2871.3
17.5°	2755.5	2788.5	2727.9	2746.3	2713.2
20°	2608.4	2636.0	2637.8	2608.4	2503.6
22.5°	2492.6	2520.2	2542.2	2454.0	2443.0
25°	2386.0	2417.2	2433.8	2375.0	2382.3
27.5°	2279.4	2314.3	2314.3	2327.2	2310.6
30°	2202.2	2216.9	2193.0	2240.8	2226.1
32.5°	2110.3	2115.8	2095.5	2130.5	2079.0
35°	2022.0	2025.7	2022.0	2023.9	2022.0
37.5°	1937.5	1928.3	1944.8	1933.8	1968.7
40°	1843.7	1843.7	1851.1	1869.4	1897.0
42.5°	1757.3	1764.7	1755.5	1806.9	1818.0
45°	1659.9	1672.8	1658.1	1726.1	1709.5
47.5°	1571.7	1577.2	1573.5	1619.5	1623.1
50°	1476.1	1483.4	1487.1	1527.5	1533.1
52.5°	1397.0	1395.2	1382.3	1441.1	1450.3
55°	1303.3	1301.4	1297.8	1343.7	1356.6
57.5°	1207.7	1209.5	1218.7	1244.5	1275.7
60°	1121.3	1112.1	1119.5	1150.7	1176.4
62.5°	1033.1	1016.5	1000.0	1051.4	1075.3
65°	935.6	915.4	906.2	948.5	989.0
67.5°	845.6	812.5	807.0	836.4	884.2
70°	742.6	702.2	700.4	722.4	779.4
72.5°	628.7	593.7	584.5	614.0	665.4
75°	520.2	481.6	470.6	498.2	545.9
77.5°	402.6	371.3	364.0	378.7	417.3
80°	283.1	264.7	257.3	262.9	290.4
82.5°	178.3	165.4	161.8	159.9	174.6
85°	90.1	80.9	80.9	75.4	79.0
87.5°	27.6	25.7	23.9	18.4	20.2
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)