

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: P487043

Luminaire Tested: **ORLG-24-4-INS-89BC-LD4-4LO-20-120-EDD**

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: P487043
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-LD4-4LO-20-120-EDD
Description: 2X4 ORL LED LUMINAIRE WITH 89BC LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

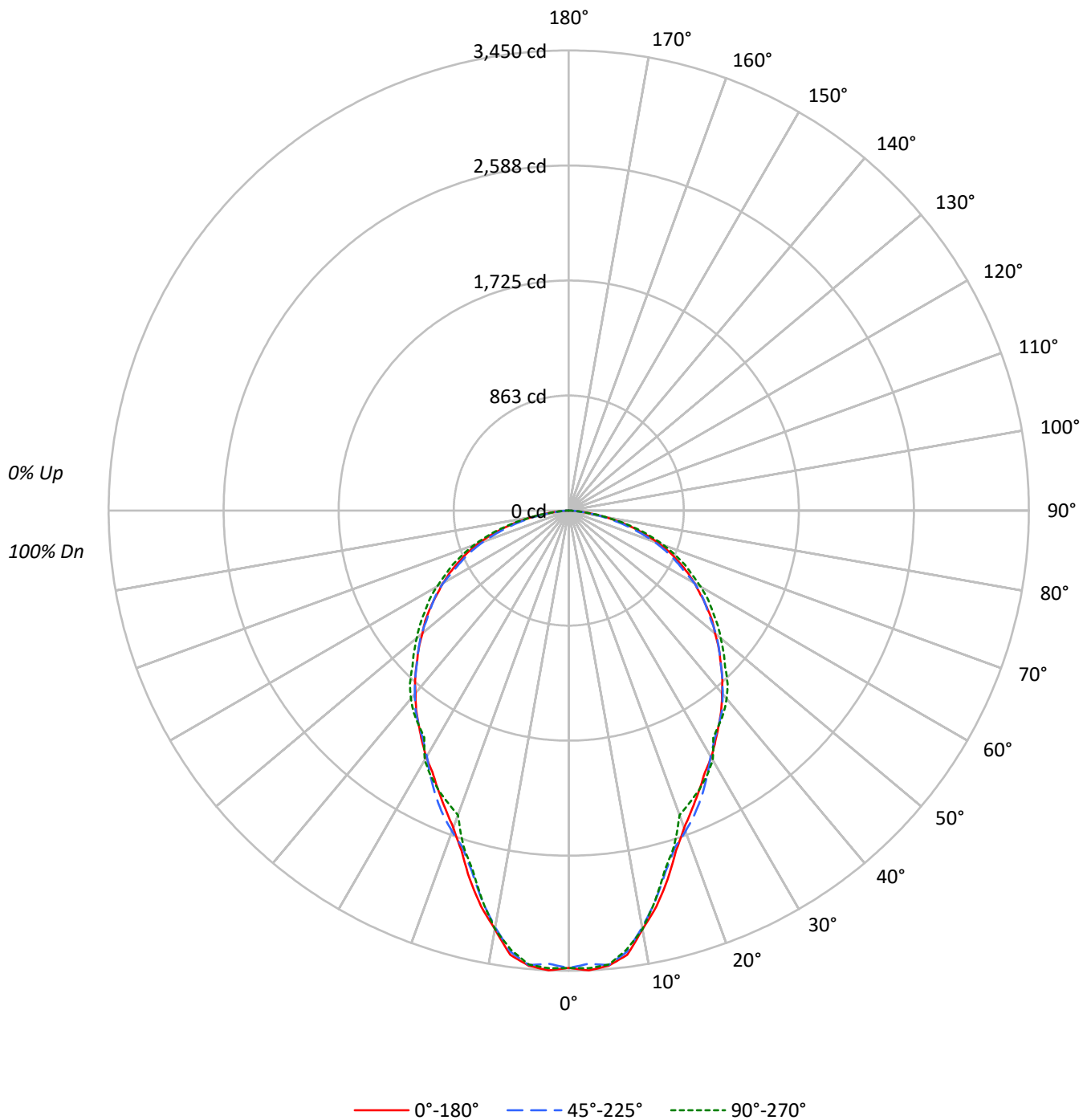
Lumens per Lamp: N/A
Luminaire Lumens: 7333.6 lumens
Efficiency: N/A
Efficacy: 78.4 lumens/watt
Spacing Criteria (0/90/45): 0.94 / 0.94 / 1.15
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 93.6
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°	4614	4614	4614
5°	4627	4619	4615
10°	4354	4334	4351
15°	3989	3902	3880
20°	3623	3664	3478
25°	3436	3505	3431
30°	3319	3305	3355
35°	3222	3222	3222
40°	3142	3154	3232
45°	3064	3061	3156
50°	2997	3020	3113
55°	2966	2953	3087
60°	2927	2922	3071
65°	2890	2799	3054
70°	2834	2673	2974
75°	2624	2373	2753
80°	2128	1935	2183
85°	1349	1212	1184



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	318.5	4.3
10°-20°	796.2	10.9
20°-30°	1075.3	14.7
30°-40°	1231.4	16.8
40°-50°	1261.4	17.2
50°-60°	1144.5	15.6
60°-70°	893.3	12.2
70°-80°	506.6	6.9
80°-90°	106.3	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°	2190.1	29.9
0°-40°	3421.5	46.7
0°-60°	5827.3	79.5
0°-90°	7333.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	7333.6	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	3429	3429	3429	3429	3429	
5°	3426	3386	3420	3427	3417	320
15°	2864	2873	2801	2816	2785	800
25°	2315	2345	2361	2304	2311	1068
35°	1962	1965	1962	1963	1962	1229
45°	1610	1623	1608	1674	1658	1245
55°	1264	1262	1259	1304	1316	1130
65°	908	888	879	920	959	900
75°	505	467	456	483	530	528
85°	87	78	78	73	77	115
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	3429.1	3429.1	3429.1	3429.1	3429.1
2.5°	3450.5	3423.8	3400.6	3438.0	3434.5
5°	3425.6	3386.3	3420.2	3427.3	3416.6
7.5°	3359.6	3334.6	3336.4	3322.1	3320.4
10°	3186.6	3200.9	3172.3	3197.3	3184.8
12.5°	3038.6	3047.5	2997.6	3008.3	2994.0
15°	2863.9	2872.8	2801.4	2815.7	2785.4
17.5°	2673.0	2705.1	2646.3	2664.1	2632.0
20°	2530.4	2557.1	2558.9	2530.4	2428.7
22.5°	2418.0	2444.8	2466.2	2380.6	2369.9
25°	2314.6	2344.9	2361.0	2303.9	2311.1
27.5°	2211.2	2245.1	2245.1	2257.6	2241.5
30°	2136.3	2150.6	2127.4	2173.7	2159.5
32.5°	2047.1	2052.5	2032.9	2066.8	2016.8
35°	1961.5	1965.1	1961.5	1963.3	1961.5
37.5°	1879.5	1870.6	1886.6	1875.9	1909.8
40°	1788.6	1788.6	1795.7	1813.5	1840.3
42.5°	1704.8	1711.9	1703.0	1752.9	1763.6
45°	1610.2	1622.7	1608.5	1674.4	1658.4
47.5°	1524.7	1530.0	1526.4	1571.0	1574.6
50°	1431.9	1439.1	1442.6	1481.9	1487.2
52.5°	1355.2	1353.5	1341.0	1398.0	1407.0
55°	1264.3	1262.5	1259.0	1303.5	1316.0
57.5°	1171.6	1173.4	1182.3	1207.2	1237.6
60°	1087.8	1078.8	1086.0	1116.3	1141.3
62.5°	1002.2	986.1	970.1	1020.0	1043.2
65°	907.7	888.0	879.1	920.1	959.4
67.5°	820.3	788.2	782.8	811.4	857.7
70°	720.4	681.2	679.4	700.8	756.1
72.5°	609.9	576.0	567.1	595.6	645.5
75°	504.7	467.2	456.5	483.3	529.6
77.5°	390.5	360.2	353.1	367.3	404.8
80°	274.6	256.8	249.7	255.0	281.7
82.5°	173.0	160.5	156.9	155.1	169.4
85°	87.4	78.5	78.5	73.1	76.7
87.5°	26.7	25.0	23.2	17.8	19.6
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)