

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: P487081

Luminaire Tested: **ORLG-24-4-INS-89BC-LD4-5LO-27-120-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: P487081
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-LD4-5LO-27-120-EDD
Description: 2X4 ORL LED LUMINAIRE WITH 89BC LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

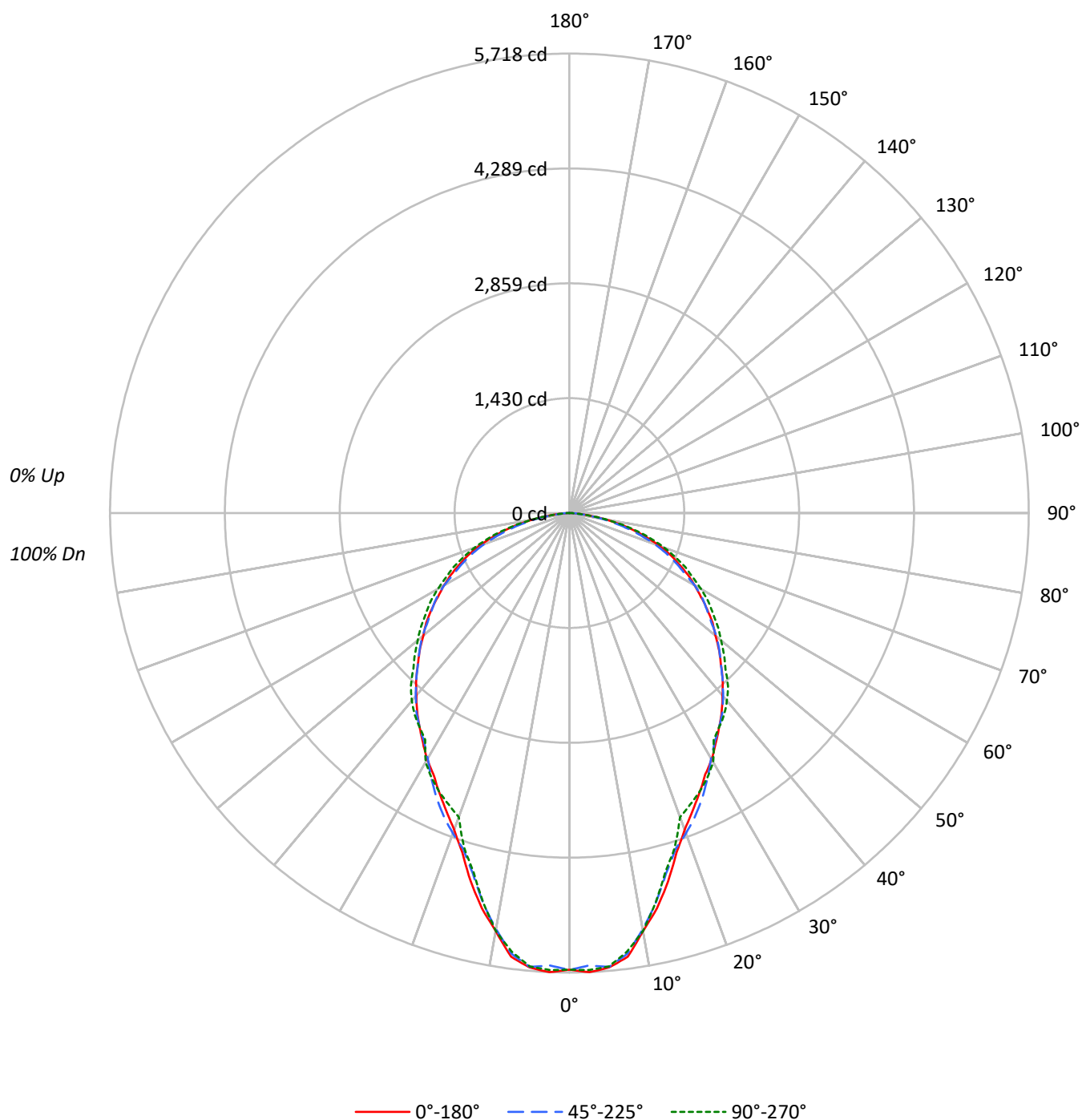
Lumens per Lamp: N/A
Luminaire Lumens: 12153.1 lumens
Efficiency: N/A
Efficacy: 103.9 lumens/watt
Spacing Criteria (0/90/45): 0.94 / 0.94 / 1.15
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 117
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	50	30	10
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°	7646	7646	7646
5°	7667	7655	7647
10°	7215	7183	7211
15°	6611	6467	6430
20°	6004	6072	5763
25°	5694	5809	5686
30°	5500	5477	5560
35°	5339	5339	5339
40°	5206	5227	5357
45°	5078	5072	5229
50°	4967	5004	5159
55°	4915	4894	5116
60°	4851	4843	5089
65°	4789	4638	5062
70°	4697	4429	4929
75°	4348	3933	4563
80°	3526	3205	3618
85°	2235	2007	1962



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	527.8	4.3
10°-20°	1319.5	10.9
20°-30°	1782.0	14.7
30°-40°	2040.7	16.8
40°-50°	2090.3	17.2
50°-60°	1896.7	15.6
60°-70°	1480.3	12.2
70°-80°	839.6	6.9
80°-90°	176.2	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°	3629.3	29.9
0°-40°	5670.0	46.7
0°-60°	9657.0	79.5
0°-90°	12153.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	12153.1	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	5683	5683	5683	5683	5683	
5°	5677	5612	5668	5680	5662	530
15°	4746	4761	4642	4666	4616	1326
25°	3836	3886	3913	3818	3830	1770
35°	3251	3256	3251	3254	3251	2036
45°	2668	2689	2666	2775	2748	2063
55°	2095	2092	2086	2160	2181	1872
65°	1504	1472	1457	1525	1590	1491
75°	836	774	756	801	878	875
85°	145	130	130	121	127	191
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	5682.7	5682.7	5682.7	5682.7	5682.7
2.5°	5718.2	5673.8	5635.4	5697.5	5691.6
5°	5676.8	5611.8	5667.9	5679.7	5662.0
7.5°	5567.4	5526.1	5529.0	5505.4	5502.4
10°	5280.8	5304.4	5257.2	5298.5	5277.8
12.5°	5035.5	5050.3	4967.6	4985.3	4961.6
15°	4745.9	4760.7	4642.5	4666.1	4615.9
17.5°	4429.7	4482.9	4385.4	4414.9	4361.8
20°	4193.3	4237.6	4240.6	4193.3	4024.9
22.5°	4007.1	4051.5	4086.9	3945.1	3927.4
25°	3835.7	3886.0	3912.6	3818.0	3829.8
27.5°	3664.3	3720.5	3720.5	3741.2	3714.6
30°	3540.2	3563.9	3525.5	3602.3	3578.6
32.5°	3392.5	3401.3	3368.8	3425.0	3342.2
35°	3250.6	3256.5	3250.6	3253.6	3250.6
37.5°	3114.7	3099.9	3126.5	3108.8	3164.9
40°	2964.0	2964.0	2975.8	3005.4	3049.7
42.5°	2825.1	2836.9	2822.1	2904.9	2922.6
45°	2668.5	2689.2	2665.5	2774.9	2748.3
47.5°	2526.6	2535.5	2529.6	2603.5	2609.4
50°	2373.0	2384.8	2390.7	2455.7	2464.6
52.5°	2245.9	2242.9	2222.2	2316.8	2331.6
55°	2095.2	2092.2	2086.3	2160.2	2180.9
57.5°	1941.5	1944.5	1959.2	2000.6	2050.9
60°	1802.6	1787.8	1799.7	1849.9	1891.3
62.5°	1660.8	1634.2	1607.6	1690.3	1728.7
65°	1504.2	1471.6	1456.9	1524.8	1589.9
67.5°	1359.4	1306.2	1297.3	1344.6	1421.4
70°	1193.9	1128.9	1125.9	1161.4	1253.0
72.5°	1010.6	954.5	939.7	987.0	1069.8
75°	836.3	774.2	756.5	800.8	877.7
77.5°	647.2	596.9	585.1	608.8	670.8
80°	455.1	425.5	413.7	422.6	466.9
82.5°	286.6	266.0	260.1	257.1	280.7
85°	144.8	130.0	130.0	121.2	127.1
87.5°	44.3	41.4	38.4	29.6	32.5
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)