

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: P487027

Luminaire Tested: **ORLG-24-4-INS-89BC-LD4-3STD-40-120-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: P487027
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-LD4-3STD-40-120-EDD
Description: 2X4 ORL LED LUMINAIRE WITH 89BC LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

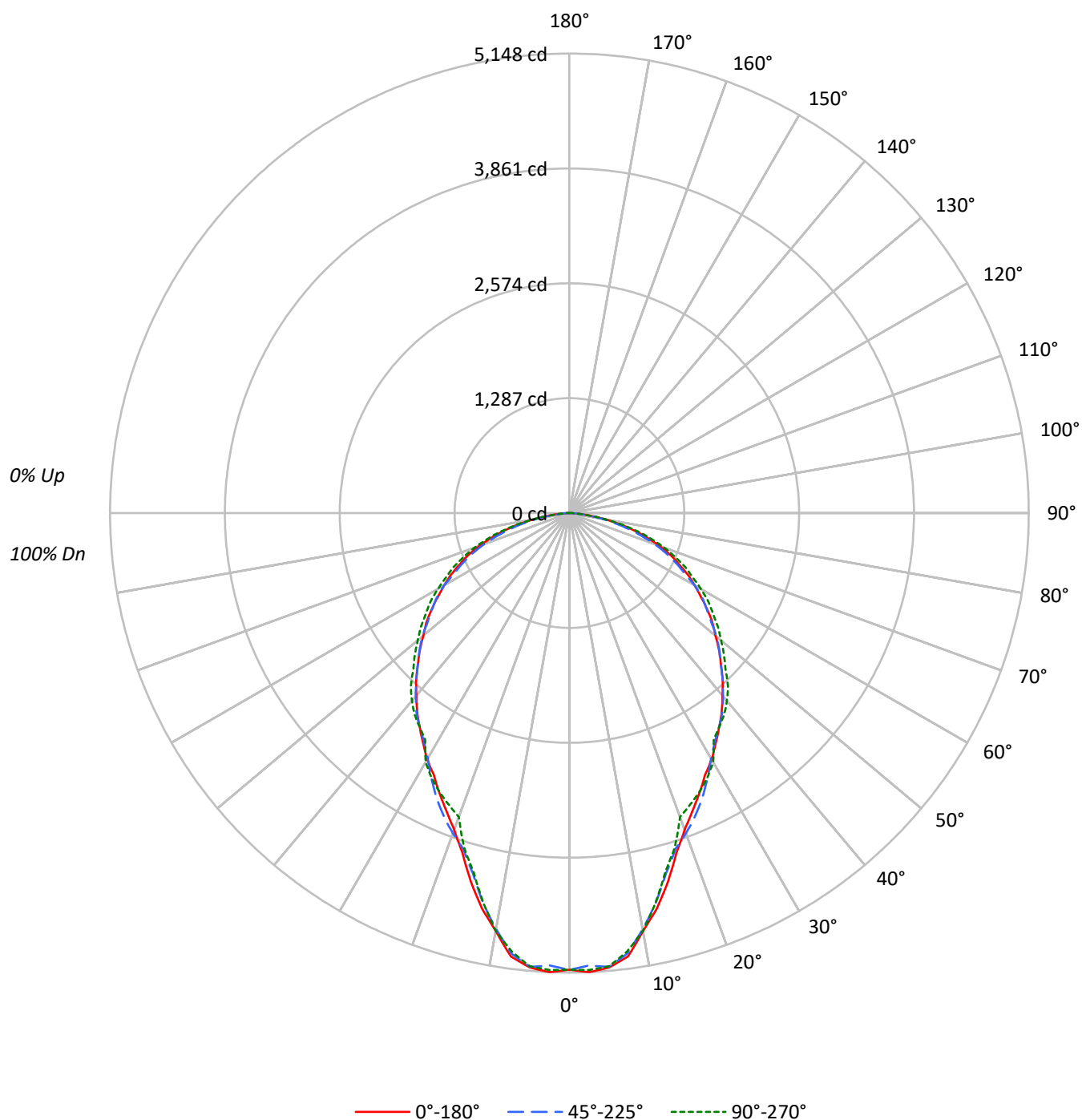
Lumens per Lamp: N/A
Luminaire Lumens: 10940.2 lumens
Efficiency: N/A
Efficacy: 109.5 lumens/watt
Spacing Criteria (0/90/45): 0.94 / 0.94 / 1.15
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 99.9
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°	6883	6883	6883
5°	6902	6891	6884
10°	6495	6466	6491
15°	5951	5821	5788
20°	5405	5466	5188
25°	5126	5229	5118
30°	4951	4931	5005
35°	4806	4806	4806
40°	4686	4705	4822
45°	4571	4566	4708
50°	4471	4505	4644
55°	4424	4406	4605
60°	4367	4360	4581
65°	4311	4175	4557
70°	4228	3987	4437
75°	3913	3540	4107
80°	3175	2885	3257
85°	2012	1806	1766



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	475.1	4.3
10°-20°	1187.8	10.9
20°-30°	1604.2	14.7
30°-40°	1837.0	16.8
40°-50°	1881.7	17.2
50°-60°	1707.4	15.6
60°-70°	1332.6	12.2
70°-80°	755.8	6.9
80°-90°	158.6	1.4
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°	3267.1	29.9
0°-40°	5104.1	46.7
0°-60°	8693.2	79.5
0°-90°	10940.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	10940.2	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	5116	5116	5116	5116	5116	
5°	5110	5052	5102	5113	5097	477
15°	4272	4286	4179	4200	4155	1194
25°	3453	3498	3522	3437	3448	1593
35°	2926	2932	2926	2929	2926	1833
45°	2402	2421	2400	2498	2474	1857
55°	1886	1883	1878	1945	1963	1685
65°	1354	1325	1312	1373	1431	1342
75°	753	697	681	721	790	788
85°	130	117	117	109	114	172
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	5115.5	5115.5	5115.5	5115.5	5115.5
2.5°	5147.5	5107.6	5073.0	5128.8	5123.5
5°	5110.2	5051.7	5102.2	5112.9	5096.9
7.5°	5011.8	4974.6	4977.2	4955.9	4953.3
10°	4753.8	4775.0	4732.5	4769.7	4751.1
12.5°	4533.0	4546.3	4471.8	4487.7	4466.5
15°	4272.3	4285.6	4179.2	4200.4	4155.2
17.5°	3987.6	4035.5	3947.7	3974.3	3926.4
20°	3774.8	3814.7	3817.4	3774.8	3623.2
22.5°	3607.2	3647.1	3679.0	3551.4	3535.4
25°	3452.9	3498.2	3522.1	3437.0	3447.6
27.5°	3298.6	3349.2	3349.2	3367.8	3343.9
30°	3186.9	3208.2	3173.6	3242.8	3221.5
32.5°	3053.9	3061.9	3032.6	3083.2	3008.7
35°	2926.2	2931.5	2926.2	2928.9	2926.2
37.5°	2803.8	2790.5	2814.5	2798.5	2849.1
40°	2668.2	2668.2	2678.8	2705.4	2745.3
42.5°	2543.1	2553.8	2540.5	2615.0	2630.9
45°	2402.2	2420.8	2399.5	2497.9	2474.0
47.5°	2274.5	2282.4	2277.1	2343.6	2348.9
50°	2136.1	2146.8	2152.1	2210.6	2218.6
52.5°	2021.7	2019.1	2000.5	2085.6	2098.9
55°	1886.1	1883.4	1878.1	1944.6	1963.2
57.5°	1747.7	1750.4	1763.7	1800.9	1846.2
60°	1622.7	1609.4	1620.1	1665.3	1702.5
62.5°	1495.0	1471.1	1447.1	1521.6	1556.2
65°	1354.0	1324.8	1311.5	1372.7	1431.2
67.5°	1223.7	1175.8	1167.8	1210.4	1279.6
70°	1074.7	1016.2	1013.5	1045.5	1127.9
72.5°	909.8	859.2	845.9	888.5	963.0
75°	752.8	697.0	681.0	720.9	790.1
77.5°	582.6	537.4	526.7	548.0	603.9
80°	409.7	383.1	372.4	380.4	420.3
82.5°	258.0	239.4	234.1	231.4	252.7
85°	130.3	117.0	117.0	109.1	114.4
87.5°	39.9	37.2	34.6	26.6	29.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)