

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: P489653

Luminaire Tested: **CLM-24-4-INS-A19156-LD4-3HI-35-120-EDD**

Issue Date: 3/11/2021

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: P489653
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2101-115-8)
Test Lab: INNOVATION CENTER
Issue Date: 3/11/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: FAIL-SAFE
Catalog Number: CLM-24-4-INS-A19156-LD4-3HI-35-120-EDD
Description: 2X4 CLM LED LUMINAIRE WITH A19156 LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

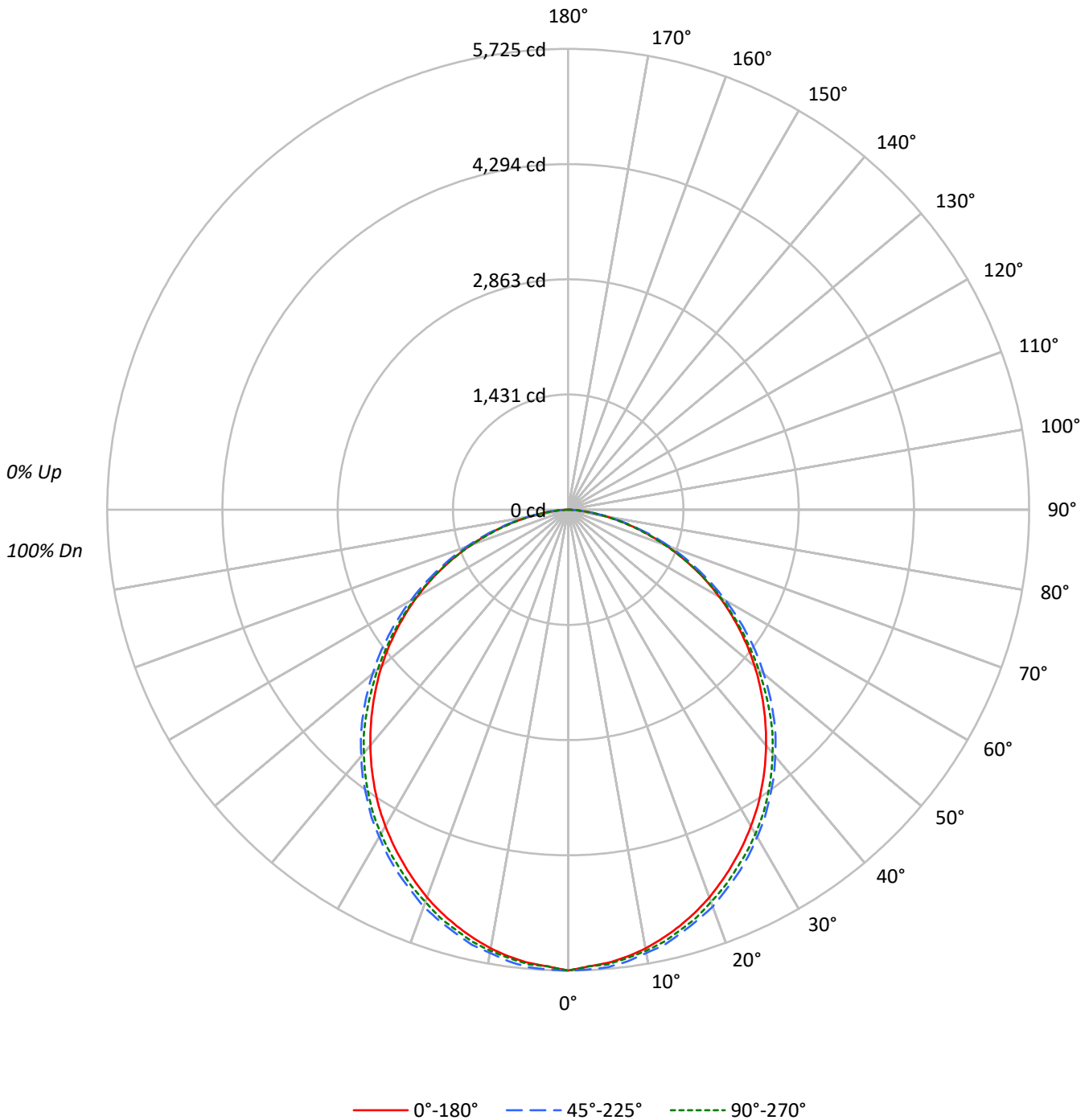
Lumens per Lamp: N/A
Luminaire Lumens: 15052.0 lumens
Efficiency: N/A
Efficacy: 116.1 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.21 / 1.34
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 129.6
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				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	105	100	97	106	102	98	95	98	95	92	94	92	89	91	88	87	85
2	99	91	85	79	97	90	83	78	86	81	76	83	78	75	80	76	73	71
3	91	80	72	66	88	79	71	65	76	70	64	73	68	63	71	66	62	60
4	83	71	63	56	81	70	62	56	68	61	55	65	59	54	63	58	54	51
5	77	64	55	48	75	63	54	48	61	53	48	59	52	47	57	51	47	45
6	71	58	49	42	69	57	48	42	55	47	42	53	47	41	52	46	41	39
7	66	52	44	38	64	51	43	37	50	43	37	49	42	37	47	41	37	35
8	61	48	39	34	60	47	39	33	46	38	33	45	38	33	43	37	33	31
9	57	44	36	30	56	43	35	30	42	35	30	41	35	30	40	34	30	28
10	54	41	33	27	52	40	32	27	39	32	27	38	32	27	37	31	27	25

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	7703	7703	7703
5°	7632	7704	7656
10°	7562	7639	7602
15°	7457	7578	7525
20°	7340	7514	7424
25°	7197	7406	7321
30°	7052	7291	7224
35°	6893	7166	7100
40°	6714	7023	6934
45°	6525	6854	6725
50°	6329	6635	6462
55°	6100	6385	6189
60°	5840	6082	5894
65°	5504	5714	5507
70°	5064	5268	5008
75°	4459	4661	4391
80°	3624	3780	3582
85°	2523	2689	2624



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	539.2	3.6
10°-20°	1528.0	10.2
20°-30°	2278.9	15.1
30°-40°	2700.5	17.9
40°-50°	2732.5	18.2
50°-60°	2386.5	15.9
60°-70°	1743.9	11.6
70°-80°	927.9	6.2
80°-90°	214.5	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°	4346.1	28.9
0°-40°	7046.7	46.8
0°-60°	12165.7	80.8
0°-90°	15052.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	15052.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	5725	5725	5725	5725	5725	
5°	5651	5661	5704	5717	5669	536
15°	5354	5389	5440	5473	5402	1509
25°	4848	4907	4989	5007	4931	2233
35°	4196	4262	4363	4393	4322	2624
45°	3429	3490	3602	3605	3534	2646
55°	2600	2653	2722	2682	2638	2324
65°	1729	1764	1795	1759	1730	1711
75°	858	878	896	864	845	912
85°	163	166	174	176	170	207
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	5725.2	5725.2	5725.2	5725.2	5725.2
2.5°	5680.5	5699.0	5718.1	5726.4	5679.9
5°	5650.7	5661.4	5703.8	5716.9	5668.6
7.5°	5601.8	5617.9	5659.0	5665.0	5618.5
10°	5535.0	5563.6	5591.0	5620.9	5564.2
12.5°	5449.7	5488.4	5535.0	5540.3	5497.4
15°	5353.6	5389.4	5440.1	5472.9	5401.9
17.5°	5246.3	5280.8	5346.5	5352.4	5309.5
20°	5126.4	5169.3	5248.0	5261.8	5184.8
22.5°	4990.4	5048.2	5113.8	5127.0	5070.3
25°	4847.8	4907.4	4988.6	5007.1	4931.3
27.5°	4698.7	4755.9	4847.2	4860.3	4796.5
30°	4538.8	4592.5	4692.7	4714.8	4649.7
32.5°	4376.5	4430.2	4541.2	4559.7	4496.4
35°	4196.4	4262.0	4362.8	4393.3	4322.3
37.5°	4012.7	4076.5	4191.0	4218.5	4142.1
40°	3822.4	3885.6	3998.4	4021.0	3947.7
42.5°	3627.9	3691.2	3811.7	3815.2	3754.4
45°	3429.3	3490.1	3602.3	3605.3	3534.3
47.5°	3227.7	3289.1	3389.3	3378.0	3311.2
50°	3023.7	3082.1	3169.8	3147.2	3086.9
52.5°	2812.5	2869.2	2952.1	2915.1	2858.4
55°	2600.2	2652.7	2721.8	2682.5	2638.3
57.5°	2386.0	2439.1	2492.2	2452.2	2414.1
60°	2170.1	2216.6	2260.2	2219.6	2190.4
62.5°	1950.6	1990.5	2028.1	1989.3	1961.9
65°	1728.7	1763.9	1794.9	1759.1	1729.9
67.5°	1508.0	1537.8	1566.4	1529.4	1499.0
70°	1287.3	1312.9	1339.2	1301.0	1272.9
72.5°	1069.5	1092.2	1115.5	1078.5	1054.0
75°	857.8	877.5	896.5	863.7	844.6
77.5°	655.6	672.3	685.4	664.5	646.0
80°	467.7	480.2	487.9	479.6	462.3
82.5°	300.6	309.6	313.8	313.2	301.8
85°	163.4	166.4	174.2	176.0	170.0
87.5°	63.2	67.4	69.2	74.6	68.6
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)