

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: P489729

Luminaire Tested: **CLM-24-4-INS-A19156-LD4-5HI-50-120-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: P489729
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-LD4-5HI-50-120-EDD
Description: 2X4 CLM LED LUMINAIRE WITH A19156 LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

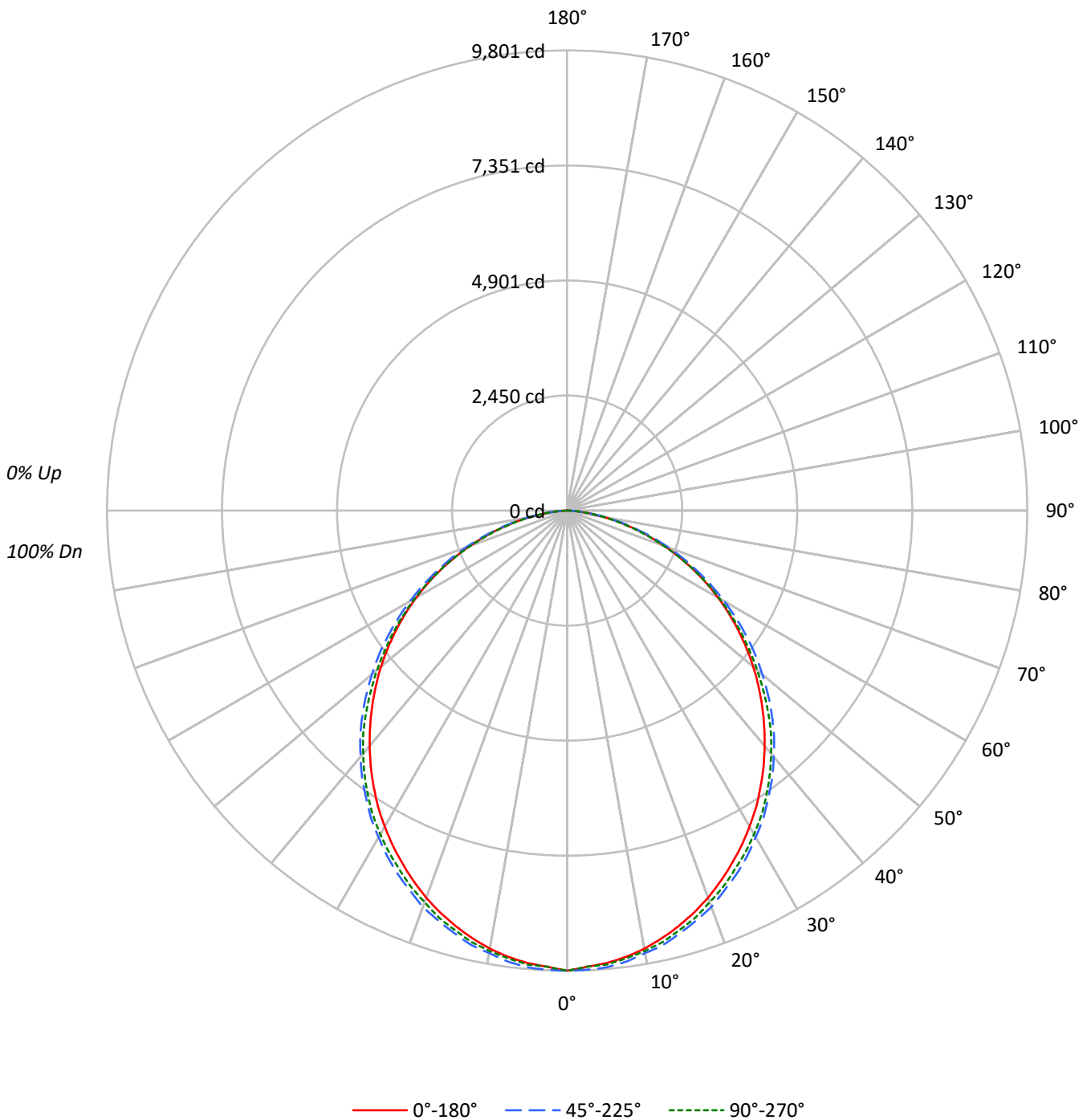
Lumens per Lamp: N/A
Luminaire Lumens: 25767.4 lumens
Efficiency: N/A
Efficacy: 119.3 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.21 / 1.34
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 216
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°	13187	13187	13187
5°	13065	13188	13107
10°	12946	13077	13014
15°	12766	12972	12881
20°	12566	12864	12709
25°	12320	12678	12533
30°	12072	12481	12367
35°	11800	12268	12154
40°	11493	12022	11870
45°	11171	11734	11513
50°	10835	11359	11062
55°	10442	10930	10595
60°	9997	10412	10090
65°	9422	9782	9428
70°	8669	9019	8572
75°	7634	7979	7517
80°	6203	6472	6132
85°	4319	4604	4492



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	923.1	3.6
10°-20°	2615.8	10.2
20°-30°	3901.3	15.1
30°-40°	4623.1	17.9
40°-50°	4677.8	18.2
50°-60°	4085.4	15.9
60°-70°	2985.4	11.6
70°-80°	1588.5	6.2
80°-90°	367.1	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°	7440.1	28.9
0°-40°	12063.1	46.8
0°-60°	20826.4	80.8
0°-90°	25767.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	25767.4	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	9801	9801	9801	9801	9801	
5°	9673	9692	9764	9787	9704	917
15°	9165	9226	9313	9369	9248	2584
25°	8299	8401	8540	8572	8442	3823
35°	7184	7296	7469	7521	7399	4493
45°	5871	5975	6167	6172	6050	4529
55°	4451	4541	4660	4592	4516	3979
65°	2959	3020	3073	3011	2961	2928
75°	1468	1502	1535	1479	1446	1561
85°	280	285	298	301	291	354
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	9801.0	9801.0	9801.0	9801.0	9801.0
2.5°	9724.4	9756.1	9788.7	9803.0	9723.4
5°	9673.4	9691.7	9764.2	9786.7	9704.0
7.5°	9589.6	9617.2	9687.7	9697.9	9618.2
10°	9475.3	9524.3	9571.2	9622.3	9525.3
12.5°	9329.2	9395.6	9475.3	9484.4	9410.9
15°	9164.8	9226.1	9312.9	9369.1	9247.5
17.5°	8981.0	9040.2	9152.6	9162.8	9089.3
20°	8775.8	8849.3	8984.1	9007.6	8875.8
22.5°	8542.9	8642.0	8754.3	8776.8	8679.8
25°	8298.9	8401.0	8539.9	8571.5	8441.9
27.5°	8043.6	8141.6	8297.9	8320.3	8211.1
30°	7769.9	7861.8	8033.4	8071.2	7959.9
32.5°	7492.2	7584.1	7774.0	7805.7	7697.4
35°	7183.8	7296.1	7468.7	7520.8	7399.3
37.5°	6869.3	6978.5	7174.6	7221.6	7090.9
40°	6543.5	6651.8	6844.8	6883.6	6758.0
42.5°	6210.6	6318.9	6525.2	6531.3	6427.1
45°	5870.6	5974.8	6166.7	6171.8	6050.3
47.5°	5525.4	5630.6	5802.2	5782.8	5668.4
50°	5176.2	5276.3	5426.4	5387.6	5284.5
52.5°	4814.7	4911.7	5053.7	4990.4	4893.4
55°	4451.2	4541.1	4659.5	4592.1	4516.5
57.5°	4084.6	4175.5	4266.4	4197.9	4132.6
60°	3714.9	3794.6	3869.1	3799.7	3749.7
62.5°	3339.2	3407.6	3471.9	3405.5	3358.6
65°	2959.3	3019.5	3072.6	3011.4	2961.3
67.5°	2581.5	2632.5	2681.5	2618.2	2566.2
70°	2203.6	2247.6	2292.5	2227.1	2179.1
72.5°	1830.9	1869.7	1909.6	1846.2	1804.4
75°	1468.4	1502.1	1534.8	1478.6	1445.9
77.5°	1122.2	1150.8	1173.3	1137.6	1105.9
80°	800.6	822.0	835.3	821.0	791.4
82.5°	514.7	530.0	537.1	536.1	516.7
85°	279.8	284.9	298.2	301.2	291.0
87.5°	108.2	115.4	118.5	127.6	117.4
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)