

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: P489727

Luminaire Tested: **CLM-24-4-INS-A19156-LD4-5HI-40-120-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: P489727
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-40-120-EDD
Description: 2X4 CLM LED LUMINAIRE WITH A19156 LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

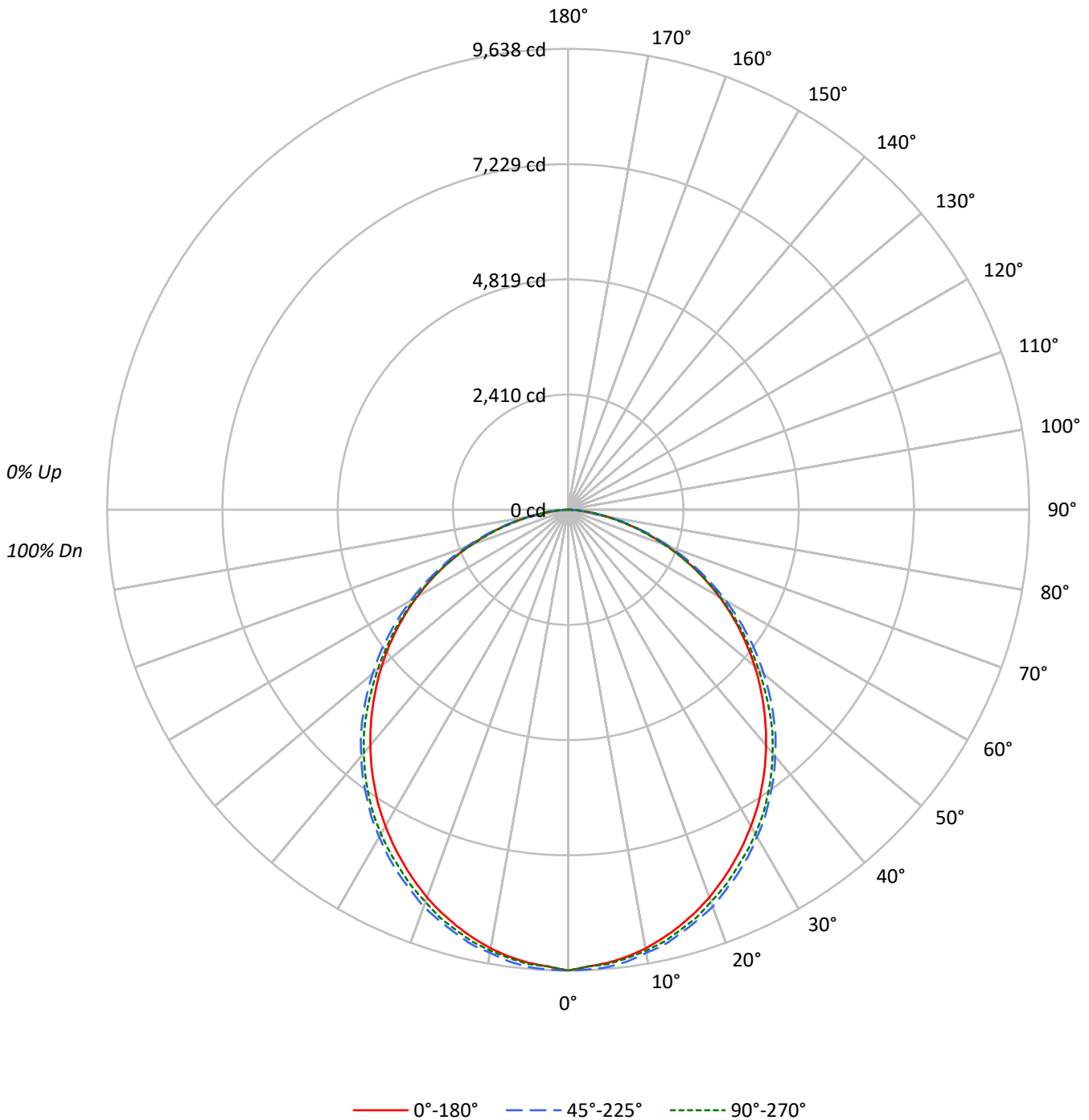
Lumens per Lamp: N/A
Luminaire Lumens: 25337.5 lumens
Efficiency: N/A
Efficacy: 117.3 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.21 / 1.34
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

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°	12967	12967	12967
5°	12847	12968	12888
10°	12730	12859	12797
15°	12553	12756	12667
20°	12356	12649	12497
25°	12115	12467	12324
30°	11870	12273	12160
35°	11603	12063	11951
40°	11301	11822	11672
45°	10984	11538	11321
50°	10654	11169	10877
55°	10267	10748	10418
60°	9830	10238	9922
65°	9264	9619	9271
70°	8524	8868	8430
75°	7506	7846	7391
80°	6100	6365	6030
85°	4247	4526	4418



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	907.7	3.6
10°-20°	2572.1	10.2
20°-30°	3836.2	15.1
30°-40°	4545.9	17.9
40°-50°	4599.8	18.2
50°-60°	4017.2	15.9
60°-70°	2935.6	11.6
70°-80°	1562.0	6.2
80°-90°	361.0	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°	7316.0	28.9
0°-40°	11861.9	46.8
0°-60°	20478.9	80.8
0°-90°	25337.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	25337.5	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	9638	9638	9638	9638	9638	
5°	9512	9530	9601	9623	9542	902
15°	9012	9072	9158	9213	9093	2541
25°	8160	8261	8397	8428	8301	3760
35°	7064	7174	7344	7395	7276	4418
45°	5773	5875	6064	6069	5949	4453
55°	4377	4465	4582	4516	4441	3913
65°	2910	2969	3021	2961	2912	2880
75°	1444	1477	1509	1454	1422	1535
85°	275	280	293	296	286	348
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	9637.5	9637.5	9637.5	9637.5	9637.5
2.5°	9562.2	9593.3	9625.4	9639.5	9561.2
5°	9512.0	9530.0	9601.3	9623.4	9542.1
7.5°	9429.6	9456.7	9526.0	9536.1	9457.7
10°	9317.2	9365.4	9411.6	9461.8	9366.4
12.5°	9173.6	9238.9	9317.2	9326.2	9253.9
15°	9011.9	9072.2	9157.5	9212.7	9093.3
17.5°	8831.2	8889.4	8999.9	9009.9	8937.6
20°	8629.4	8701.6	8834.2	8857.3	8727.8
22.5°	8400.4	8497.8	8608.3	8630.4	8535.0
25°	8160.4	8260.8	8397.4	8428.5	8301.0
27.5°	7909.4	8005.8	8159.4	8181.5	8074.1
30°	7640.3	7730.7	7899.4	7936.5	7827.1
32.5°	7367.2	7457.6	7644.3	7675.4	7569.0
35°	7063.9	7174.4	7344.1	7395.3	7275.8
37.5°	6754.7	6862.1	7054.9	7101.1	6972.6
40°	6434.4	6540.8	6730.6	6768.7	6645.2
42.5°	6107.0	6213.5	6416.3	6422.3	6319.9
45°	5772.6	5875.1	6063.8	6068.9	5949.4
47.5°	5433.3	5536.7	5705.4	5686.3	5573.8
50°	5089.9	5188.3	5335.9	5297.7	5196.3
52.5°	4734.4	4829.8	4969.4	4907.1	4811.7
55°	4376.9	4465.3	4581.8	4515.5	4441.2
57.5°	4016.5	4105.8	4195.2	4127.9	4063.6
60°	3653.0	3731.3	3804.6	3736.3	3687.1
62.5°	3283.5	3350.7	3414.0	3348.7	3302.5
65°	2909.9	2969.2	3021.4	2961.1	2911.9
67.5°	2538.4	2588.6	2636.8	2574.5	2523.3
70°	2166.9	2210.1	2254.2	2190.0	2142.8
72.5°	1800.4	1838.5	1877.7	1815.4	1774.3
75°	1443.9	1477.1	1509.2	1454.0	1421.8
77.5°	1103.5	1131.6	1153.7	1118.6	1087.5
80°	787.2	808.3	821.4	807.3	778.2
82.5°	506.1	521.1	528.2	527.2	508.1
85°	275.1	280.1	293.2	296.2	286.2
87.5°	106.4	113.5	116.5	125.5	115.5
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)