

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: P489651

Luminaire Tested: **CLM-24-4-INS-A19156-LD4-3HI-30-120-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: P489651
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-30-120-EDD
Description: 2X4 CLM LED LUMINAIRE WITH A19156 LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

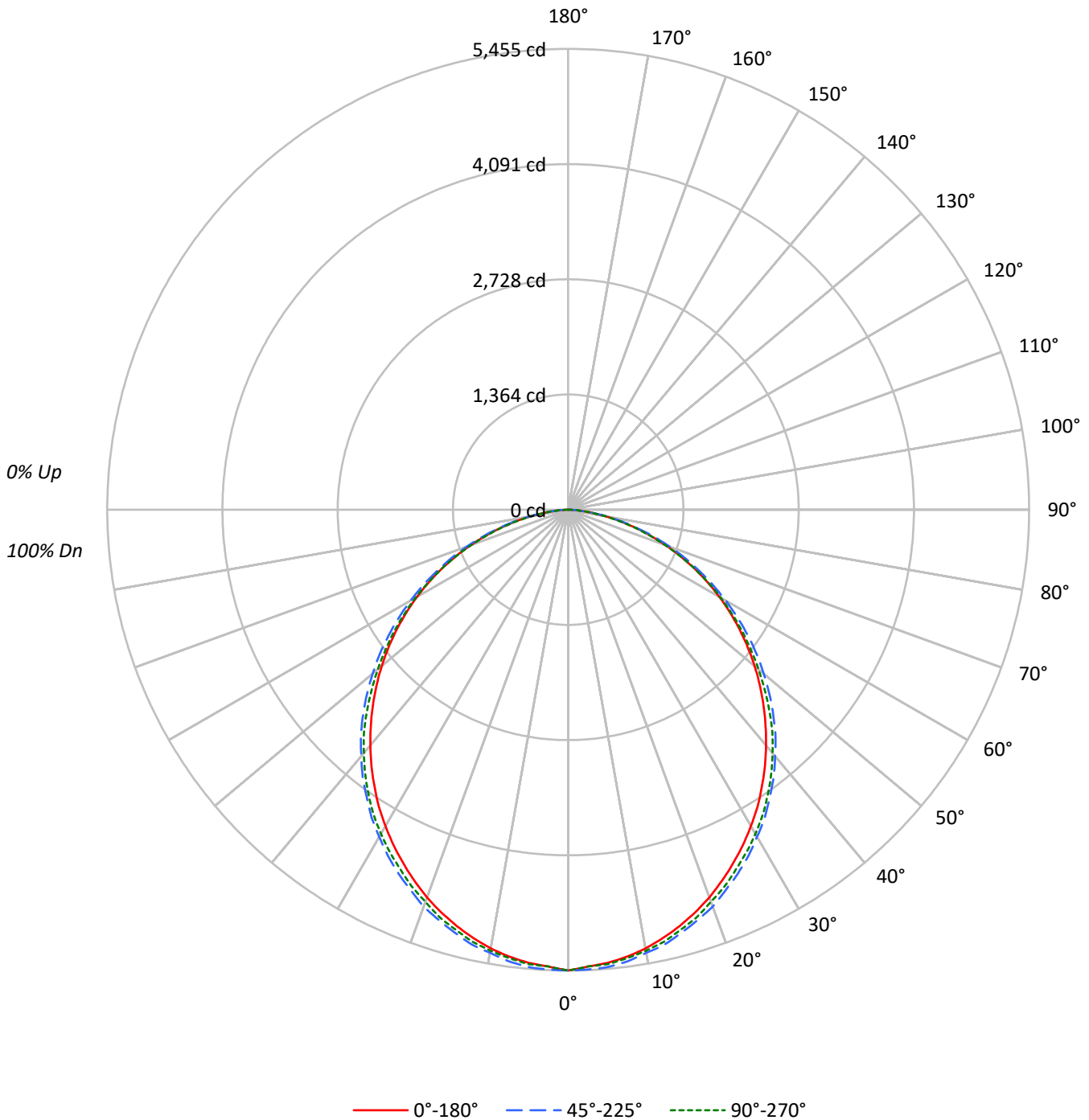
Lumens per Lamp: N/A
Luminaire Lumens: 14341.0 lumens
Efficiency: N/A
Efficacy: 110.7 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.21 / 1.34
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

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°	7339	7339	7339
5°	7272	7340	7294
10°	7205	7278	7243
15°	7105	7220	7169
20°	6993	7159	7073
25°	6857	7056	6975
30°	6719	6946	6883
35°	6567	6828	6764
40°	6396	6691	6606
45°	6217	6531	6407
50°	6030	6322	6156
55°	5811	6083	5897
60°	5564	5795	5616
65°	5244	5444	5247
70°	4825	5019	4771
75°	4249	4441	4184
80°	3453	3602	3413
85°	2404	2563	2501



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	513.7	3.6
10°-20°	1455.8	10.2
20°-30°	2171.3	15.1
30°-40°	2573.0	17.9
40°-50°	2603.5	18.2
50°-60°	2273.8	15.9
60°-70°	1661.5	11.6
70°-80°	884.1	6.2
80°-90°	204.3	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°	4140.8	28.9
0°-40°	6713.8	46.8
0°-60°	11591.0	80.8
0°-90°	14341.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	14341.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	5455	5455	5455	5455	5455	
5°	5384	5394	5434	5447	5401	510
15°	5101	5135	5183	5214	5147	1438
25°	4619	4676	4753	4770	4698	2128
35°	3998	4061	4157	4186	4118	2500
45°	3267	3325	3432	3435	3367	2521
55°	2477	2527	2593	2556	2514	2215
65°	1647	1680	1710	1676	1648	1630
75°	817	836	854	823	805	869
85°	156	159	166	168	162	197
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	5454.8	5454.8	5454.8	5454.8	5454.8
2.5°	5412.2	5429.8	5448.0	5455.9	5411.6
5°	5383.8	5394.0	5434.3	5446.8	5400.8
7.5°	5337.2	5352.5	5391.7	5397.4	5353.1
10°	5273.5	5300.8	5326.9	5355.3	5301.4
12.5°	5192.2	5229.2	5273.5	5278.6	5237.7
15°	5100.7	5134.8	5183.1	5214.4	5146.8
17.5°	4998.4	5031.4	5093.9	5099.6	5058.7
20°	4884.2	4925.1	5000.1	5013.2	4939.9
22.5°	4754.6	4809.8	4872.3	4884.8	4830.8
25°	4618.8	4675.6	4752.9	4770.5	4698.4
27.5°	4476.7	4531.3	4618.2	4630.7	4569.9
30°	4324.4	4375.6	4471.0	4492.1	4430.1
32.5°	4169.8	4221.0	4326.7	4344.3	4284.1
35°	3998.2	4060.7	4156.7	4185.7	4118.1
37.5°	3823.1	3883.9	3993.1	4019.2	3946.5
40°	3641.8	3702.1	3809.5	3831.1	3761.2
42.5°	3456.6	3516.8	3631.6	3635.0	3577.1
45°	3267.3	3325.3	3432.1	3435.0	3367.3
47.5°	3075.2	3133.8	3229.2	3218.4	3154.8
50°	2880.9	2936.5	3020.1	2998.5	2941.1
52.5°	2679.7	2733.7	2812.7	2777.4	2723.4
55°	2477.3	2527.4	2593.3	2555.8	2513.7
57.5°	2273.3	2323.9	2374.5	2336.4	2300.0
60°	2067.6	2111.9	2153.4	2114.7	2086.9
62.5°	1858.4	1896.5	1932.3	1895.4	1869.2
65°	1647.0	1680.5	1710.1	1676.0	1648.1
67.5°	1436.7	1465.1	1492.4	1457.2	1428.2
70°	1226.5	1250.9	1275.9	1239.5	1212.8
72.5°	1019.0	1040.6	1062.8	1027.5	1004.2
75°	817.3	836.0	854.2	822.9	804.8
77.5°	624.6	640.5	653.0	633.1	615.5
80°	445.6	457.5	464.9	456.9	440.5
82.5°	286.4	295.0	298.9	298.4	287.6
85°	155.7	158.6	166.0	167.7	162.0
87.5°	60.2	64.2	65.9	71.0	65.4
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)