

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: P489703

Luminaire Tested: **CLM-24-4-INS-A19156-LD4-4LO-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: P489703
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-LD4-4LO-40-120-EDD
Description: 2X4 CLM LED LUMINAIRE WITH A19156 LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

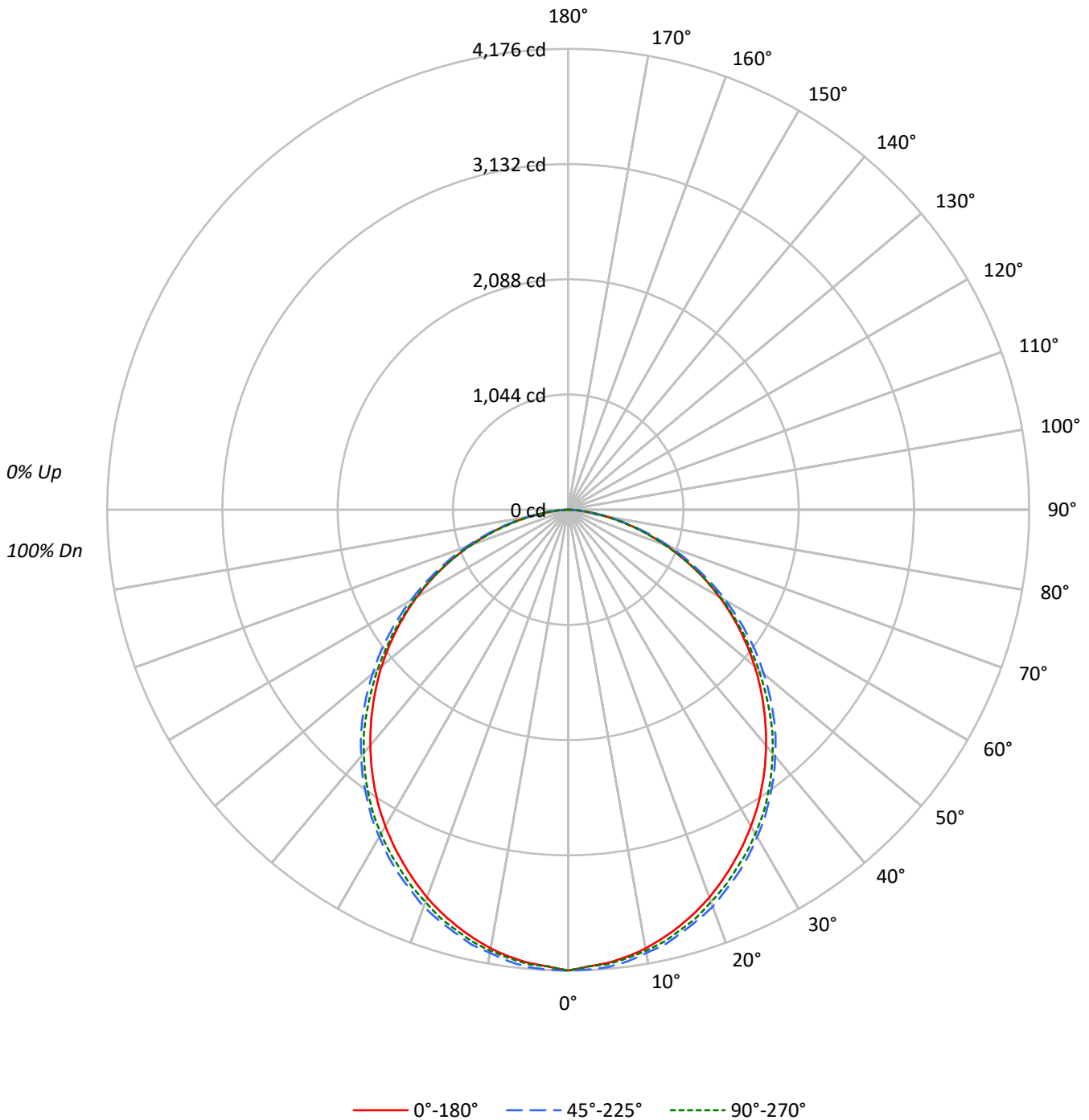
Lumens per Lamp: N/A
Luminaire Lumens: 10979.6 lumens
Efficiency: N/A
Efficacy: 117.3 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.21 / 1.34
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 93.6
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°	5619	5619	5619
5°	5567	5619	5585
10°	5516	5572	5545
15°	5440	5528	5489
20°	5354	5481	5415
25°	5250	5402	5340
30°	5144	5318	5269
35°	5028	5227	5179
40°	4897	5123	5058
45°	4760	5000	4906
50°	4617	4840	4713
55°	4449	4657	4514
60°	4260	4437	4299
65°	4015	4168	4017
70°	3694	3843	3653
75°	3253	3400	3203
80°	2643	2758	2613
85°	1840	1962	1914



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	393.3	3.6
10°-20°	1114.6	10.2
20°-30°	1662.4	15.1
30°-40°	1969.9	17.9
40°-50°	1993.2	18.2
50°-60°	1740.8	15.9
60°-70°	1272.1	11.6
70°-80°	676.9	6.2
80°-90°	156.4	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°	3170.3	28.9
0°-40°	5140.2	46.8
0°-60°	8874.2	80.8
0°-90°	10979.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	10979.6	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	4176	4176	4176	4176	4176	
5°	4122	4130	4161	4170	4135	391
15°	3905	3931	3968	3992	3940	1101
25°	3536	3580	3639	3652	3597	1629
35°	3061	3109	3182	3205	3153	1914
45°	2502	2546	2628	2630	2578	1930
55°	1897	1935	1985	1957	1924	1695
65°	1261	1287	1309	1283	1262	1248
75°	626	640	654	630	616	665
85°	119	121	127	128	124	151
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	4176.2	4176.2	4176.2	4176.2	4176.2
2.5°	4143.6	4157.1	4171.0	4177.1	4143.2
5°	4121.9	4129.7	4160.6	4170.2	4134.9
7.5°	4086.2	4097.9	4128.0	4132.3	4098.4
10°	4037.4	4058.3	4078.3	4100.1	4058.8
12.5°	3975.2	4003.5	4037.4	4041.4	4010.0
15°	3905.2	3931.3	3968.3	3992.2	3940.4
17.5°	3826.9	3852.1	3900.0	3904.3	3873.0
20°	3739.4	3770.7	3828.2	3838.2	3782.0
22.5°	3640.2	3682.4	3730.3	3739.8	3698.5
25°	3536.2	3579.7	3638.9	3652.4	3597.1
27.5°	3427.4	3469.2	3535.8	3545.3	3498.8
30°	3310.8	3350.0	3423.1	3439.2	3391.7
32.5°	3192.5	3231.6	3312.5	3326.0	3279.9
35°	3061.0	3108.9	3182.4	3204.6	3152.9
37.5°	2927.0	2973.6	3057.1	3077.1	3021.4
40°	2788.2	2834.3	2916.6	2933.1	2879.6
42.5°	2646.4	2692.5	2780.4	2783.0	2738.6
45°	2501.5	2545.9	2627.7	2629.8	2578.1
47.5°	2354.4	2399.2	2472.3	2464.1	2415.3
50°	2205.6	2248.2	2312.2	2295.7	2251.7
52.5°	2051.6	2092.9	2153.4	2126.4	2085.1
55°	1896.7	1935.0	1985.4	1956.7	1924.5
57.5°	1740.5	1779.2	1817.9	1788.8	1760.9
60°	1583.0	1616.9	1648.7	1619.1	1597.7
62.5°	1422.8	1452.0	1479.4	1451.1	1431.1
65°	1261.0	1286.6	1309.3	1283.2	1261.8
67.5°	1100.0	1121.7	1142.6	1115.6	1093.4
70°	939.0	957.7	976.8	949.0	928.5
72.5°	780.2	796.7	813.7	786.7	768.9
75°	625.7	640.1	654.0	630.0	616.1
77.5°	478.2	490.4	499.9	484.7	471.2
80°	341.1	350.3	355.9	349.8	337.2
82.5°	219.3	225.8	228.9	228.4	220.2
85°	119.2	121.4	127.1	128.4	124.0
87.5°	46.1	49.2	50.5	54.4	50.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)