

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: P489725

Luminaire Tested: **CLM-24-4-INS-A19156-LD4-5HI-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: P489725
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-35-120-EDD
Description: 2X4 CLM LED LUMINAIRE WITH A19156 LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

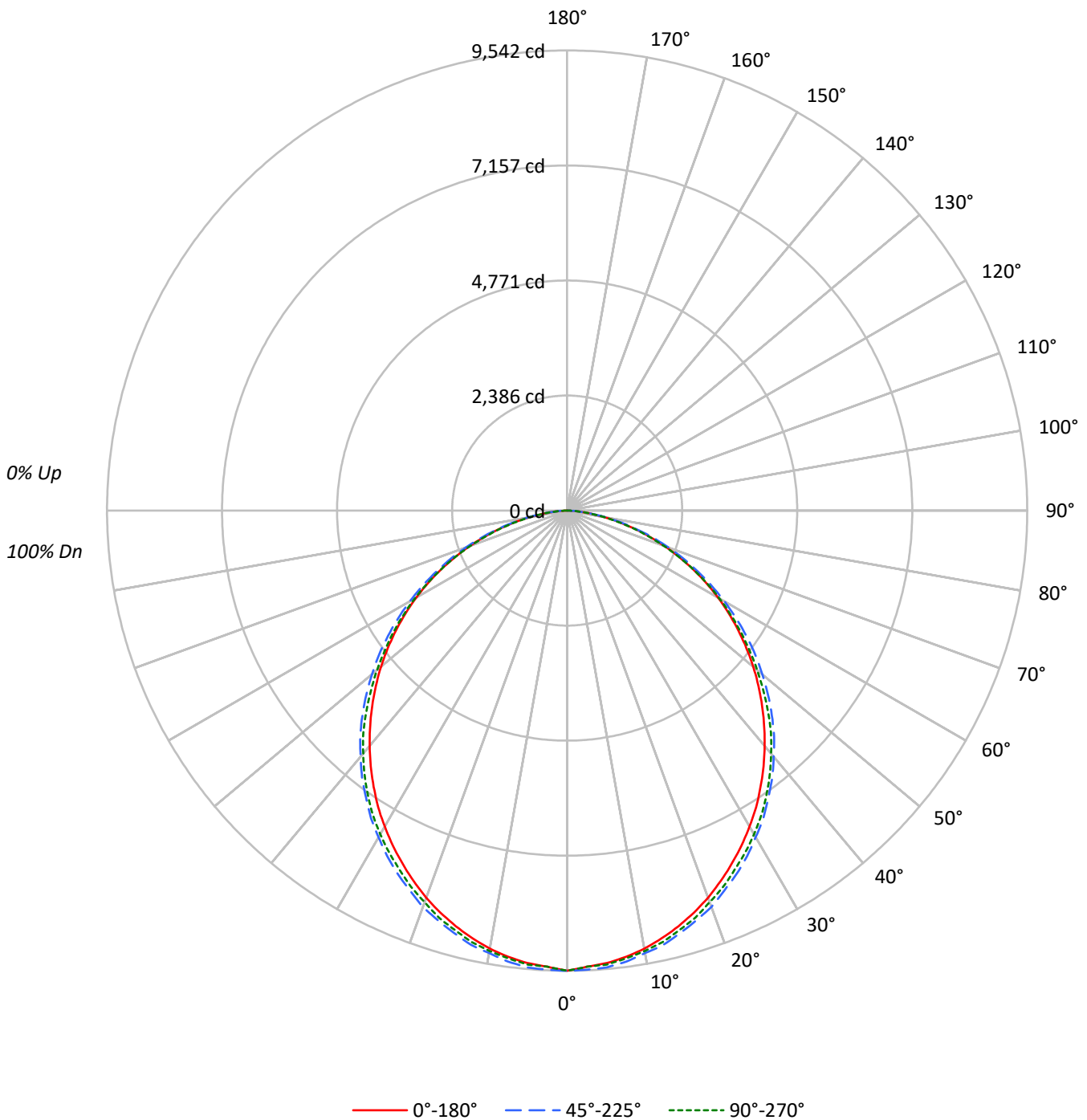
Lumens per Lamp: N/A
Luminaire Lumens: 25086.7 lumens
Efficiency: N/A
Efficacy: 116.1 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.21 / 1.34
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 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	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					100			
1	109	105	100	97	106	102	98	95	98	95	92	94	92	89	91	88	87	85					85			
2	99	91	85	79	97	90	83	78	86	81	76	83	78	75	80	76	73	71					71			
3	91	80	72	66	88	79	71	65	76	70	64	73	68	63	71	66	62	60					60			
4	83	71	63	56	81	70	62	56	68	61	55	65	59	54	63	58	54	51					51			
5	77	64	55	48	75	63	54	48	61	53	48	59	52	47	57	51	47	45					45			
6	71	58	49	42	69	57	48	42	55	47	42	53	47	41	52	46	41	39					39			
7	66	52	44	38	64	51	43	37	50	43	37	49	42	37	47	41	37	35					35			
8	61	48	39	34	60	47	39	33	46	38	33	45	38	33	43	37	33	31					31			
9	57	44	36	30	56	43	35	30	42	35	30	41	35	30	40	34	30	28					28			
10	54	41	33	27	52	40	32	27	39	32	27	38	32	27	37	31	27	25					25			

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	12839	12839	12839
5°	12720	12839	12760
10°	12603	12731	12670
15°	12429	12630	12541
20°	12233	12524	12373
25°	11995	12343	12201
30°	11753	12151	12040
35°	11488	11944	11833
40°	11190	11705	11556
45°	10876	11424	11208
50°	10549	11058	10769
55°	10166	10641	10315
60°	9733	10137	9824
65°	9173	9524	9179
70°	8440	8780	8346
75°	7432	7768	7319
80°	6039	6301	5970
85°	4205	4482	4374



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	898.7	3.6
10°-20°	2546.7	10.2
20°-30°	3798.2	15.1
30°-40°	4500.9	17.9
40°-50°	4554.3	18.2
50°-60°	3977.5	15.9
60°-70°	2906.6	11.6
70°-80°	1546.5	6.2
80°-90°	357.4	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°	7243.5	28.9
0°-40°	11744.5	46.8
0°-60°	20276.2	80.8
0°-90°	25086.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	25086.7	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	9542	9542	9542	9542	9542	
5°	9418	9436	9506	9528	9448	893
15°	8923	8982	9067	9122	9003	2515
25°	8080	8179	8314	8345	8219	3722
35°	6994	7103	7271	7322	7204	4374
45°	5716	5817	6004	6009	5890	4409
55°	4334	4421	4536	4471	4397	3874
65°	2881	2940	2992	2932	2883	2851
75°	1430	1462	1494	1440	1408	1520
85°	272	277	290	293	283	345
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	9542.1	9542.1	9542.1	9542.1	9542.1
2.5°	9467.5	9498.3	9530.2	9544.1	9466.5
5°	9417.8	9435.7	9506.3	9528.2	9447.6
7.5°	9336.3	9363.1	9431.7	9441.7	9364.1
10°	9224.9	9272.7	9318.4	9368.1	9273.7
12.5°	9082.8	9147.4	9224.9	9233.9	9162.3
15°	8922.7	8982.4	9066.9	9121.6	9003.2
17.5°	8743.8	8801.4	8910.8	8920.7	8849.1
20°	8543.9	8615.5	8746.7	8769.6	8641.4
22.5°	8317.3	8413.7	8523.1	8544.9	8450.5
25°	8079.7	8179.1	8314.3	8345.1	8218.8
27.5°	7831.1	7926.6	8078.7	8100.5	7994.2
30°	7564.7	7654.2	7821.2	7858.0	7749.6
32.5°	7294.3	7383.7	7568.7	7599.5	7494.1
35°	6994.0	7103.4	7271.4	7322.1	7203.8
37.5°	6687.8	6794.2	6985.1	7030.8	6903.5
40°	6370.7	6476.1	6664.0	6701.7	6579.4
42.5°	6046.6	6152.0	6352.8	6358.7	6257.3
45°	5715.5	5816.9	6003.8	6008.8	5890.5
47.5°	5379.5	5481.9	5648.9	5630.0	5518.7
50°	5039.5	5136.9	5283.0	5245.3	5144.9
52.5°	4687.5	4782.0	4920.2	4858.5	4764.1
55°	4333.6	4421.1	4536.4	4470.8	4397.2
57.5°	3976.7	4065.2	4153.7	4087.1	4023.4
60°	3616.8	3694.4	3766.9	3699.3	3650.6
62.5°	3251.0	3317.6	3380.2	3315.6	3269.8
65°	2881.1	2939.8	2991.5	2931.8	2883.1
67.5°	2513.3	2563.0	2610.7	2549.1	2498.4
70°	2145.4	2188.2	2231.9	2168.3	2121.6
72.5°	1782.6	1820.3	1859.1	1797.5	1756.7
75°	1429.6	1462.4	1494.2	1439.6	1407.8
77.5°	1092.6	1120.4	1142.3	1107.5	1076.7
80°	779.4	800.3	813.2	799.3	770.5
82.5°	501.1	516.0	522.9	521.9	503.1
85°	272.4	277.4	290.3	293.3	283.3
87.5°	105.4	112.3	115.3	124.3	114.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)