

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: P489712

Luminaire Tested: **CLM-24-4-INS-A19156-LD4-4STD-35-120-EDD-90**

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: P489712
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-LD4-4STD-35-120-EDD-90
Description: 2X4 CLM LED LUMINAIRE WITH A19156 LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

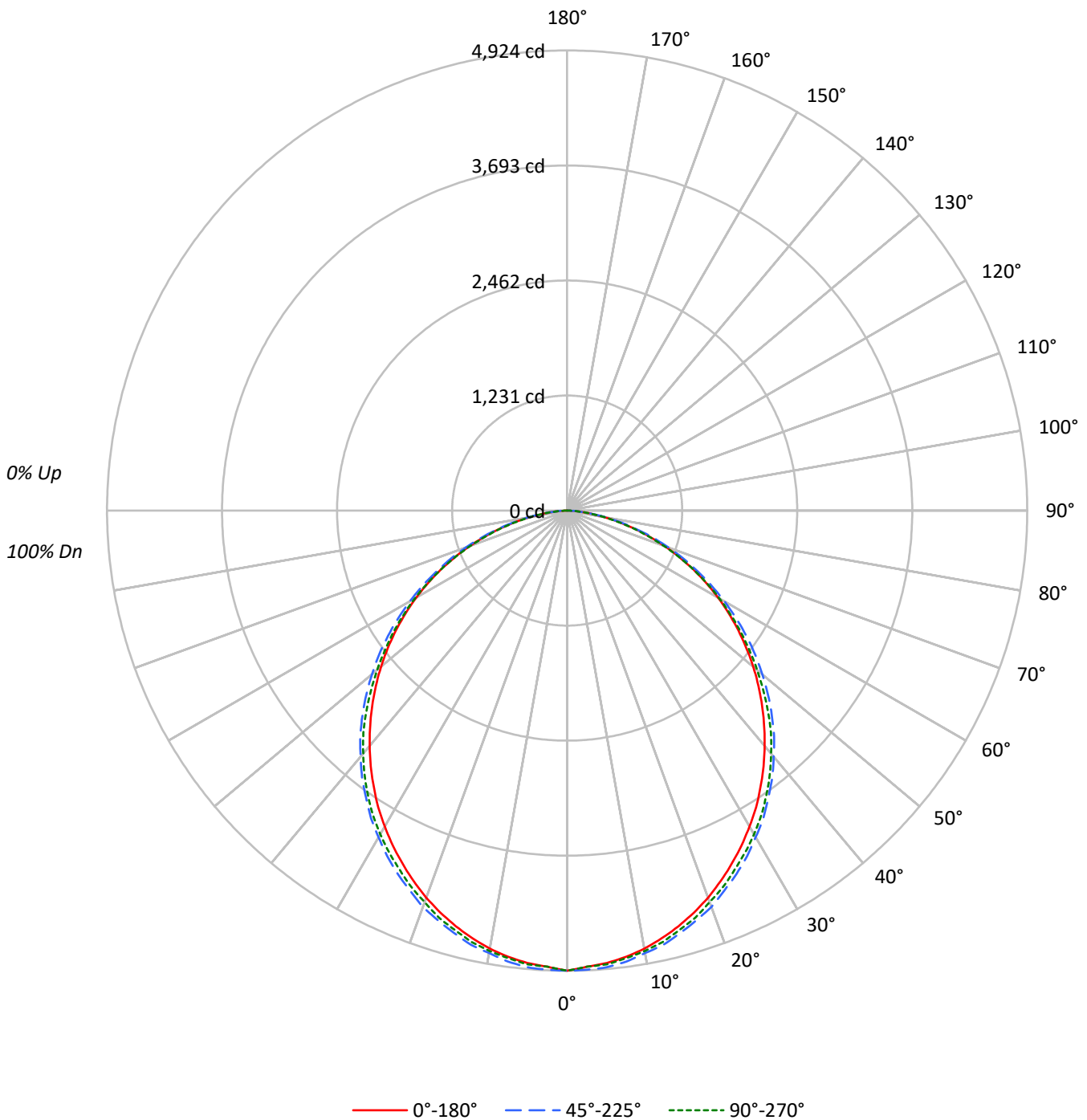
Lumens per Lamp: N/A
Luminaire Lumens: 12944.6 lumens
Efficiency: N/A
Efficacy: 97.2 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.21 / 1.34
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 133.2
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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CATALOG NUMBER: CLM-24-4-INS-A19156-LD4-4STD-35-120-EDD-90

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°	6625	6625	6625
5°	6563	6625	6584
10°	6503	6569	6538
15°	6413	6517	6471
20°	6312	6462	6384
25°	6189	6369	6296
30°	6064	6270	6213
35°	5928	6163	6105
40°	5774	6040	5963
45°	5612	5895	5784
50°	5443	5706	5557
55°	5245	5491	5322
60°	5022	5230	5069
65°	4733	4914	4736
70°	4355	4531	4306
75°	3835	4008	3776
80°	3116	3251	3081
85°	2171	2313	2257



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	463.7	3.6
10°-20°	1314.1	10.2
20°-30°	1959.9	15.1
30°-40°	2322.5	17.9
40°-50°	2350.0	18.2
50°-60°	2052.4	15.9
60°-70°	1499.8	11.6
70°-80°	798.0	6.2
80°-90°	184.4	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°	3737.6	28.9
0°-40°	6060.1	46.8
0°-60°	10462.4	80.8
0°-90°	12944.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	12944.6	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	4924	4924	4924	4924	4924	
5°	4860	4869	4905	4916	4875	461
15°	4604	4635	4678	4707	4646	1298
25°	4169	4220	4290	4306	4241	1921
35°	3609	3665	3752	3778	3717	2257
45°	2949	3002	3098	3100	3040	2275
55°	2236	2281	2341	2307	2269	1999
65°	1487	1517	1544	1513	1488	1471
75°	738	755	771	743	726	784
85°	141	143	150	151	146	178
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	4923.7	4923.7	4923.7	4923.7	4923.7
2.5°	4885.2	4901.1	4917.5	4924.7	4884.7
5°	4859.5	4868.8	4905.2	4916.5	4874.9
7.5°	4817.5	4831.3	4866.7	4871.9	4831.8
10°	4760.0	4784.6	4808.2	4833.9	4785.2
12.5°	4686.7	4720.0	4760.0	4764.6	4727.7
15°	4604.1	4634.9	4678.5	4706.7	4645.6
17.5°	4511.7	4541.5	4597.9	4603.0	4566.1
20°	4408.6	4445.6	4513.3	4525.1	4458.9
22.5°	4291.7	4341.4	4397.9	4409.1	4360.4
25°	4169.1	4220.4	4290.1	4306.0	4240.9
27.5°	4040.8	4090.1	4168.5	4179.8	4124.9
30°	3903.3	3949.5	4035.7	4054.7	3998.7
32.5°	3763.8	3810.0	3905.4	3921.3	3866.9
35°	3608.9	3665.3	3752.0	3778.2	3717.1
37.5°	3450.9	3505.8	3604.3	3627.9	3562.2
40°	3287.2	3341.6	3438.6	3458.1	3395.0
42.5°	3120.0	3174.4	3278.0	3281.1	3228.8
45°	2949.2	3001.5	3097.9	3100.5	3039.5
47.5°	2775.8	2828.6	2914.8	2905.1	2847.6
50°	2600.3	2650.6	2726.0	2706.5	2654.7
52.5°	2418.7	2467.5	2538.8	2507.0	2458.2
55°	2236.1	2281.3	2340.8	2306.9	2268.9
57.5°	2052.0	2097.6	2143.3	2108.9	2076.1
60°	1866.3	1906.3	1943.7	1908.8	1883.7
62.5°	1677.5	1711.8	1744.2	1710.8	1687.2
65°	1486.6	1516.9	1543.6	1512.8	1487.7
67.5°	1296.8	1322.5	1347.1	1315.3	1289.1
70°	1107.0	1129.1	1151.7	1118.8	1094.7
72.5°	919.8	939.3	959.3	927.5	906.5
75°	737.7	754.6	771.0	742.8	726.4
77.5°	563.8	578.1	589.4	571.5	555.6
80°	402.2	413.0	419.6	412.4	397.6
82.5°	258.5	266.2	269.8	269.3	259.6
85°	140.6	143.1	149.8	151.3	146.2
87.5°	54.4	58.0	59.5	64.1	59.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)