

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: P489621

Luminaire Tested: **CLM-24-4-INS-A19156-LD4-2HI-50-120-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: P489621
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-LD4-2HI-50-120-EDD
Description: 2X4 CLM LED LUMINAIRE WITH A19156 LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

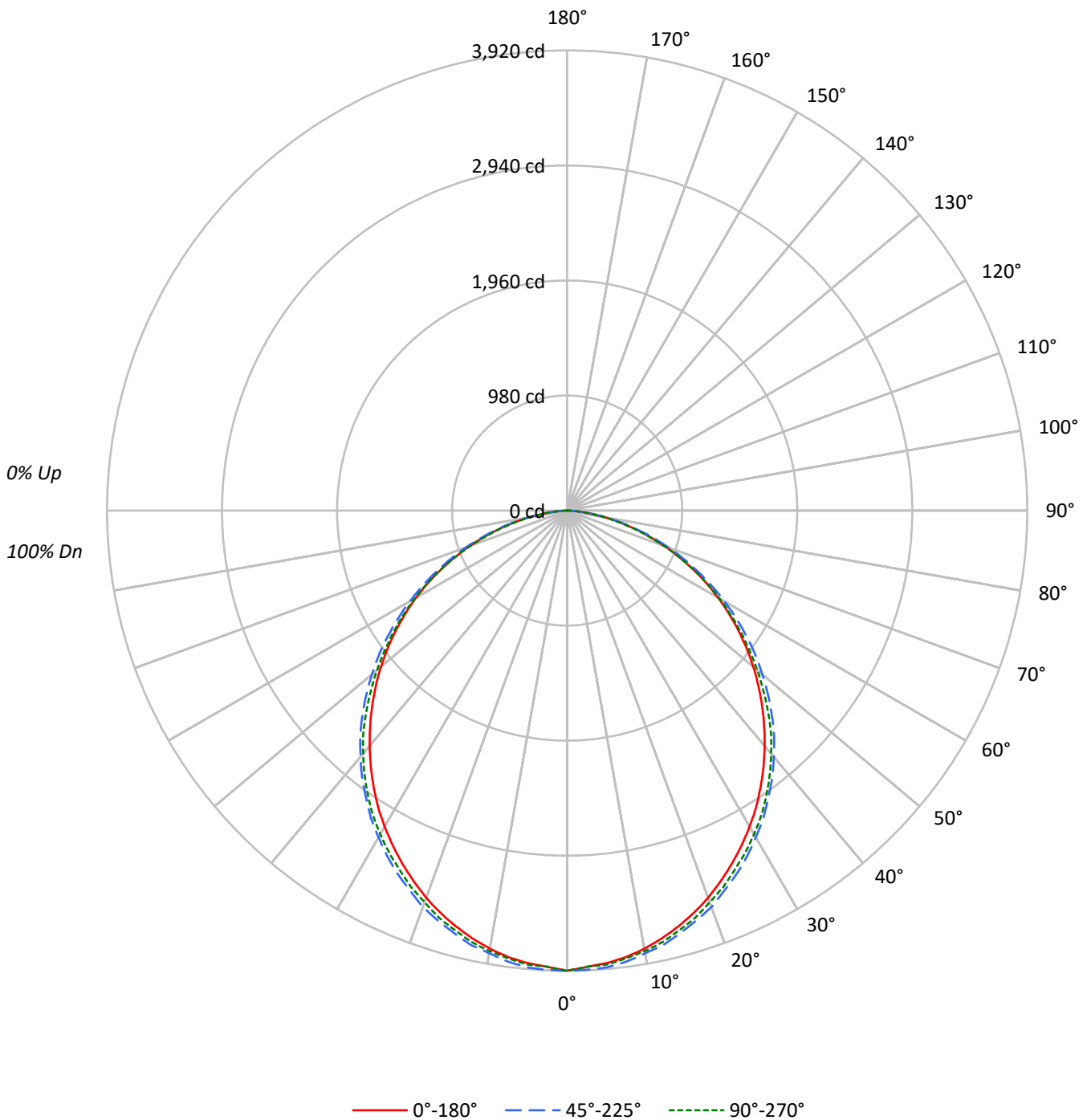
Lumens per Lamp: N/A
Luminaire Lumens: 10307.0 lumens
Efficiency: N/A
Efficacy: 119.3 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.21 / 1.34
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 86.4
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°	5275	5275	5275
5°	5226	5275	5243
10°	5178	5231	5206
15°	5106	5189	5153
20°	5026	5145	5083
25°	4928	5071	5013
30°	4829	4992	4947
35°	4720	4907	4861
40°	4597	4809	4748
45°	4468	4694	4605
50°	4334	4544	4425
55°	4177	4372	4238
60°	3999	4165	4036
65°	3769	3913	3771
70°	3468	3607	3429
75°	3054	3191	3007
80°	2481	2589	2453
85°	1727	1842	1797



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	369.2	3.6
10°-20°	1046.3	10.2
20°-30°	1560.5	15.1
30°-40°	1849.2	17.9
40°-50°	1871.1	18.2
50°-60°	1634.2	15.9
60°-70°	1194.2	11.6
70°-80°	635.4	6.2
80°-90°	146.9	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
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0°-30°	2976.0	28.9
0°-40°	4825.3	46.8
0°-60°	8330.6	80.8
0°-90°	10307.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	10307.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	3920	3920	3920	3920	3920	
5°	3869	3877	3906	3915	3882	367
15°	3666	3690	3725	3748	3699	1033
25°	3320	3360	3416	3429	3377	1529
35°	2874	2918	2988	3008	2960	1797
45°	2348	2390	2467	2469	2420	1812
55°	1780	1816	1864	1837	1807	1592
65°	1184	1208	1229	1205	1184	1171
75°	587	601	614	592	578	625
85°	112	114	119	120	116	142
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	3920.4	3920.4	3920.4	3920.4	3920.4
2.5°	3889.8	3902.4	3915.5	3921.2	3889.4
5°	3869.4	3876.7	3905.7	3914.7	3881.6
7.5°	3835.9	3846.9	3875.1	3879.2	3847.3
10°	3790.1	3809.7	3828.5	3848.9	3810.1
12.5°	3731.7	3758.3	3790.1	3793.8	3764.4
15°	3665.9	3690.5	3725.2	3747.6	3699.0
17.5°	3592.4	3616.1	3661.0	3665.1	3635.7
20°	3510.3	3539.7	3593.6	3603.0	3550.3
22.5°	3417.2	3456.8	3501.7	3510.7	3471.9
25°	3319.6	3360.4	3416.0	3428.6	3376.8
27.5°	3217.5	3256.7	3319.2	3328.1	3284.4
30°	3108.0	3144.7	3213.4	3228.5	3184.0
32.5°	2996.9	3033.6	3109.6	3122.3	3079.0
35°	2873.5	2918.5	2987.5	3008.3	2959.7
37.5°	2747.7	2791.4	2869.9	2888.6	2836.4
40°	2617.4	2660.7	2737.9	2753.4	2703.2
42.5°	2484.3	2527.6	2610.1	2612.5	2570.9
45°	2348.2	2389.9	2466.7	2468.7	2420.1
47.5°	2210.2	2252.3	2320.9	2313.1	2267.4
50°	2070.5	2110.5	2170.6	2155.0	2113.8
52.5°	1925.9	1964.7	2021.5	1996.2	1957.3
55°	1780.5	1816.4	1863.8	1836.9	1806.6
57.5°	1633.8	1670.2	1706.6	1679.2	1653.0
60°	1486.0	1517.8	1547.7	1519.9	1499.9
62.5°	1335.7	1363.0	1388.8	1362.2	1343.4
65°	1183.7	1207.8	1229.1	1204.6	1184.5
67.5°	1032.6	1053.0	1072.6	1047.3	1026.5
70°	881.5	899.0	917.0	890.9	871.7
72.5°	732.4	747.9	763.8	738.5	721.8
75°	587.4	600.8	613.9	591.5	578.4
77.5°	448.9	460.3	469.3	455.0	442.4
80°	320.2	328.8	334.1	328.4	316.6
82.5°	205.9	212.0	214.9	214.4	206.7
85°	111.9	114.0	119.3	120.5	116.4
87.5°	43.3	46.2	47.4	51.1	47.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)