

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: P488741

Luminaire Tested: **CLM-12-4-INS-A19156-LD4-3STD-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: P488741
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-12-4-INS-A19156-LD4-3STD-35-120-EDD
Description: 1X4 CLM LED LUMINAIRE WITH A19156 LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

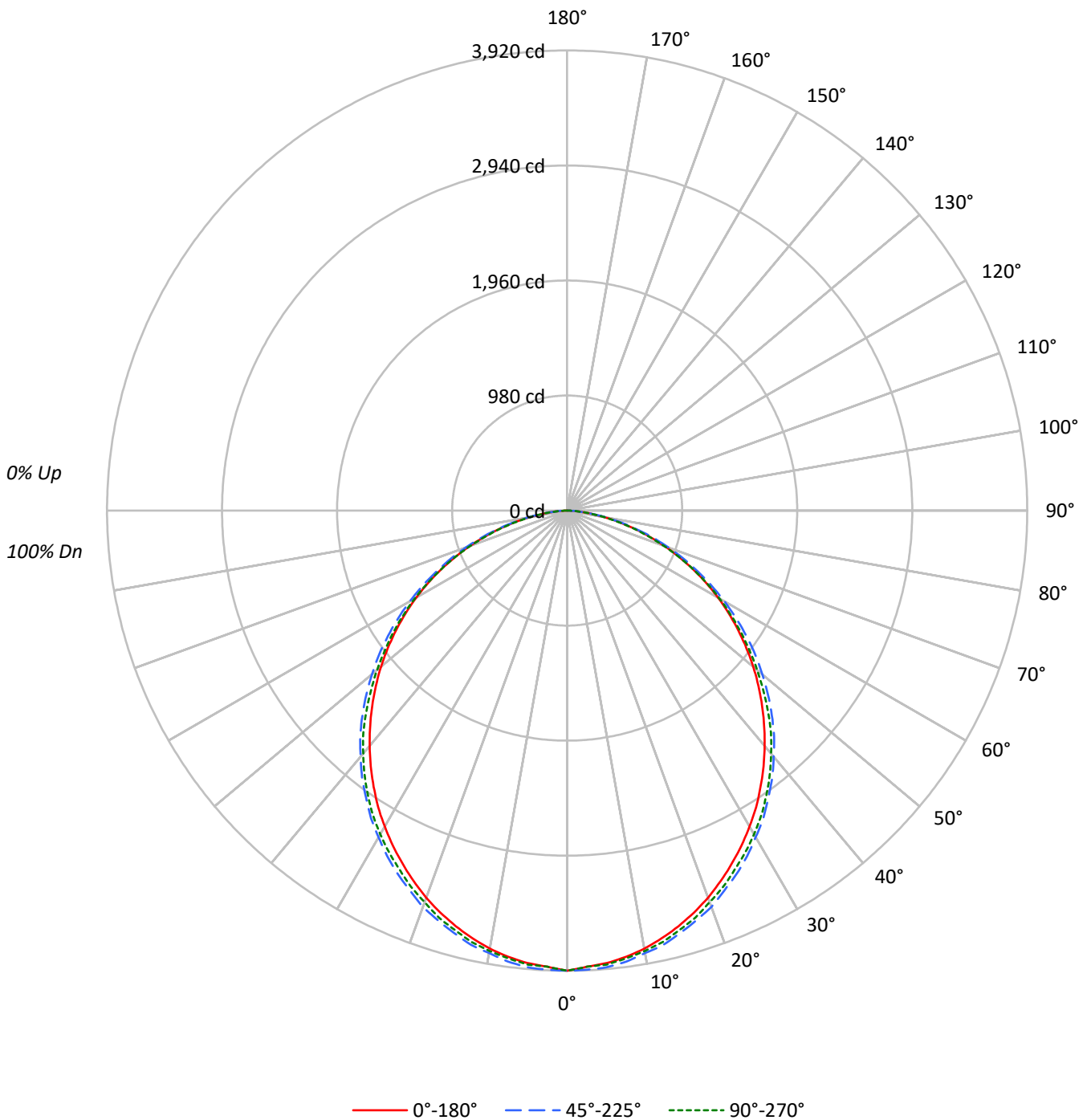
Lumens per Lamp: N/A
Luminaire Lumens: 10306.0 lumens
Efficiency: N/A
Efficacy: 103.2 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.21 / 1.34
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 99.9
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°	10549	10549	10549
5°	10451	10549	10484
10°	10355	10460	10410
15°	10212	10377	10304
20°	10052	10290	10166
25°	9855	10141	10025
30°	9656	9984	9893
35°	9439	9813	9722
40°	9194	9617	9495
45°	8936	9387	9209
50°	8667	9086	8848
55°	8352	8743	8475
60°	7997	8329	8071
65°	7536	7825	7542
70°	6935	7214	6858
75°	6106	6383	6013
80°	4962	5177	4905
85°	3455	3683	3594



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	369.2	3.6
10°-20°	1046.2	10.2
20°-30°	1560.4	15.1
30°-40°	1849.1	17.9
40°-50°	1871.0	18.2
50°-60°	1634.0	15.9
60°-70°	1194.0	11.6
70°-80°	635.3	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
0°-30°	2975.8	28.9
0°-40°	4824.8	46.8
0°-60°	8329.8	80.8
0°-90°	10306.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	10306.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	3920	3920	3920	3920	3920	
5°	3869	3876	3905	3914	3881	367
15°	3666	3690	3725	3747	3699	1033
25°	3319	3360	3416	3428	3376	1529
35°	2873	2918	2987	3008	2959	1797
45°	2348	2390	2466	2468	2420	1811
55°	1780	1816	1864	1837	1806	1591
65°	1184	1208	1229	1204	1184	1171
75°	587	601	614	591	578	624
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°	3920.0	3920.0	3920.0	3920.0	3920.0
2.5°	3889.4	3902.1	3915.1	3920.9	3889.0
5°	3869.0	3876.3	3905.3	3914.3	3881.2
7.5°	3835.5	3846.5	3874.7	3878.8	3846.9
10°	3789.7	3809.4	3828.1	3848.6	3809.8
12.5°	3731.3	3757.9	3789.7	3793.4	3764.0
15°	3665.6	3690.1	3724.8	3747.3	3698.7
17.5°	3592.1	3615.8	3660.7	3664.8	3635.4
20°	3510.0	3539.4	3593.3	3602.7	3550.0
22.5°	3416.9	3456.5	3501.4	3510.4	3471.6
25°	3319.2	3360.1	3415.6	3428.3	3376.4
27.5°	3217.1	3256.3	3318.8	3327.8	3284.1
30°	3107.7	3144.4	3213.1	3228.2	3183.7
32.5°	2996.6	3033.4	3109.3	3122.0	3078.7
35°	2873.2	2918.2	2987.2	3008.0	2959.4
37.5°	2747.5	2791.2	2869.6	2888.4	2836.1
40°	2617.2	2660.5	2737.7	2753.2	2702.9
42.5°	2484.0	2527.3	2609.8	2612.3	2570.6
45°	2348.0	2389.7	2466.5	2468.5	2419.9
47.5°	2210.0	2252.0	2320.7	2312.9	2267.2
50°	2070.3	2110.3	2170.4	2154.8	2113.6
52.5°	1925.7	1964.5	2021.3	1996.0	1957.2
55°	1780.3	1816.3	1863.6	1836.7	1806.5
57.5°	1633.7	1670.0	1706.4	1679.0	1652.9
60°	1485.8	1517.7	1547.5	1519.7	1499.7
62.5°	1335.5	1362.9	1388.6	1362.1	1343.3
65°	1183.6	1207.7	1228.9	1204.4	1184.4
67.5°	1032.5	1052.9	1072.5	1047.2	1026.4
70°	881.4	898.9	916.9	890.8	871.6
72.5°	732.3	747.8	763.7	738.4	721.7
75°	587.3	600.8	613.9	591.4	578.3
77.5°	448.9	460.3	469.3	455.0	442.3
80°	320.2	328.8	334.1	328.4	316.5
82.5°	205.8	212.0	214.8	214.4	206.7
85°	111.9	113.9	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)