

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: P488743

Luminaire Tested: **CLM-12-4-INS-A19156-LD4-3STD-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: P488743
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-40-120-EDD
Description: 1X4 CLM LED LUMINAIRE WITH A19156 LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

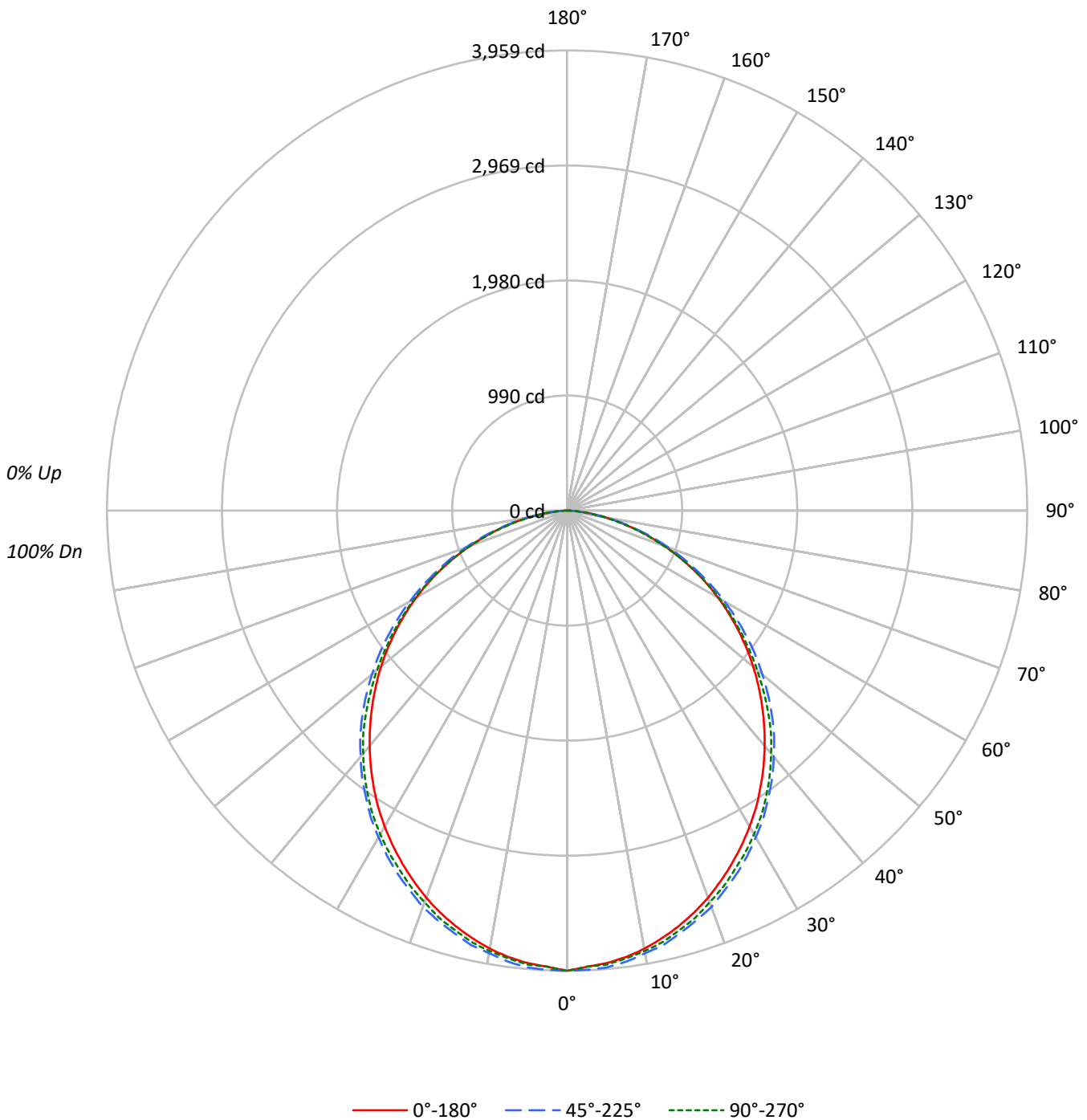
Lumens per Lamp: N/A
Luminaire Lumens: 10409.1 lumens
Efficiency: N/A
Efficacy: 104.2 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.21 / 1.34
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

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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CATALOG NUMBER: CLM-12-4-INS-A19156-LD4-3STD-40-120-EDD

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°	10654	10654	10654
5°	10556	10655	10589
10°	10459	10565	10514
15°	10314	10481	10407
20°	10152	10393	10268
25°	9954	10243	10125
30°	9753	10084	9991
35°	9533	9911	9819
40°	9286	9713	9590
45°	9025	9480	9301
50°	8754	9177	8937
55°	8436	8831	8560
60°	8077	8412	8152
65°	7612	7903	7617
70°	7004	7286	6926
75°	6168	6446	6073
80°	5012	5229	4954
85°	3489	3721	3631



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	372.9	3.6
10°-20°	1056.7	10.2
20°-30°	1576.0	15.1
30°-40°	1867.5	17.9
40°-50°	1889.7	18.2
50°-60°	1650.3	15.9
60°-70°	1206.0	11.6
70°-80°	641.7	6.2
80°-90°	148.3	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°	3005.5	28.9
0°-40°	4873.1	46.8
0°-60°	8413.1	80.8
0°-90°	10409.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	10409.1	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	3959	3959	3959	3959	3959	
5°	3908	3915	3944	3954	3920	371
15°	3702	3727	3762	3785	3736	1044
25°	3352	3394	3450	3463	3410	1545
35°	2902	2947	3017	3038	2989	1815
45°	2372	2414	2491	2493	2444	1830
55°	1798	1834	1882	1855	1824	1607
65°	1195	1220	1241	1216	1196	1183
75°	593	607	620	597	584	631
85°	113	115	120	122	118	143
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	3959.3	3959.3	3959.3	3959.3	3959.3
2.5°	3928.3	3941.1	3954.3	3960.1	3927.9
5°	3907.7	3915.1	3944.4	3953.5	3920.1
7.5°	3873.9	3885.0	3913.5	3917.6	3885.4
10°	3827.7	3847.5	3866.4	3887.1	3847.9
12.5°	3768.7	3795.5	3827.7	3831.4	3801.7
15°	3702.3	3727.0	3762.1	3784.8	3735.7
17.5°	3628.0	3651.9	3697.3	3701.4	3671.7
20°	3545.1	3574.8	3629.2	3638.7	3585.5
22.5°	3451.0	3491.1	3536.4	3545.5	3506.3
25°	3352.5	3393.7	3449.8	3462.6	3410.2
27.5°	3249.3	3288.9	3352.0	3361.1	3317.0
30°	3138.8	3175.9	3245.2	3260.5	3215.5
32.5°	3026.6	3063.7	3140.4	3153.2	3109.5
35°	2902.0	2947.4	3017.1	3038.1	2989.0
37.5°	2774.9	2819.1	2898.3	2917.3	2864.5
40°	2643.4	2687.1	2765.0	2780.7	2730.0
42.5°	2508.9	2552.6	2635.9	2638.4	2596.3
45°	2371.5	2413.6	2491.1	2493.2	2444.1
47.5°	2232.1	2274.6	2343.9	2336.0	2289.8
50°	2091.0	2131.4	2192.1	2176.4	2134.7
52.5°	1945.0	1984.2	2041.5	2015.9	1976.7
55°	1798.1	1834.4	1882.3	1855.0	1824.5
57.5°	1650.0	1686.7	1723.5	1695.8	1669.4
60°	1500.7	1532.9	1563.0	1534.9	1514.7
62.5°	1348.9	1376.5	1402.5	1375.7	1356.7
65°	1195.4	1219.8	1241.2	1216.5	1196.3
67.5°	1042.8	1063.4	1083.2	1057.7	1036.6
70°	890.2	907.9	926.1	899.7	880.3
72.5°	739.6	755.3	771.4	745.8	728.9
75°	593.2	606.8	620.0	597.3	584.1
77.5°	453.3	464.9	474.0	459.5	446.7
80°	323.4	332.1	337.4	331.7	319.7
82.5°	207.9	214.1	217.0	216.6	208.7
85°	113.0	115.1	120.5	121.7	117.6
87.5°	43.7	46.6	47.9	51.6	47.4
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)