

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: P488712

Luminaire Tested: **CLM-12-4-INS-A19156-LD4-3HI-27-120-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: P488712
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-LD4-3HI-27-120-EDD-90
Description: 1X4 CLM LED LUMINAIRE WITH A19156 LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

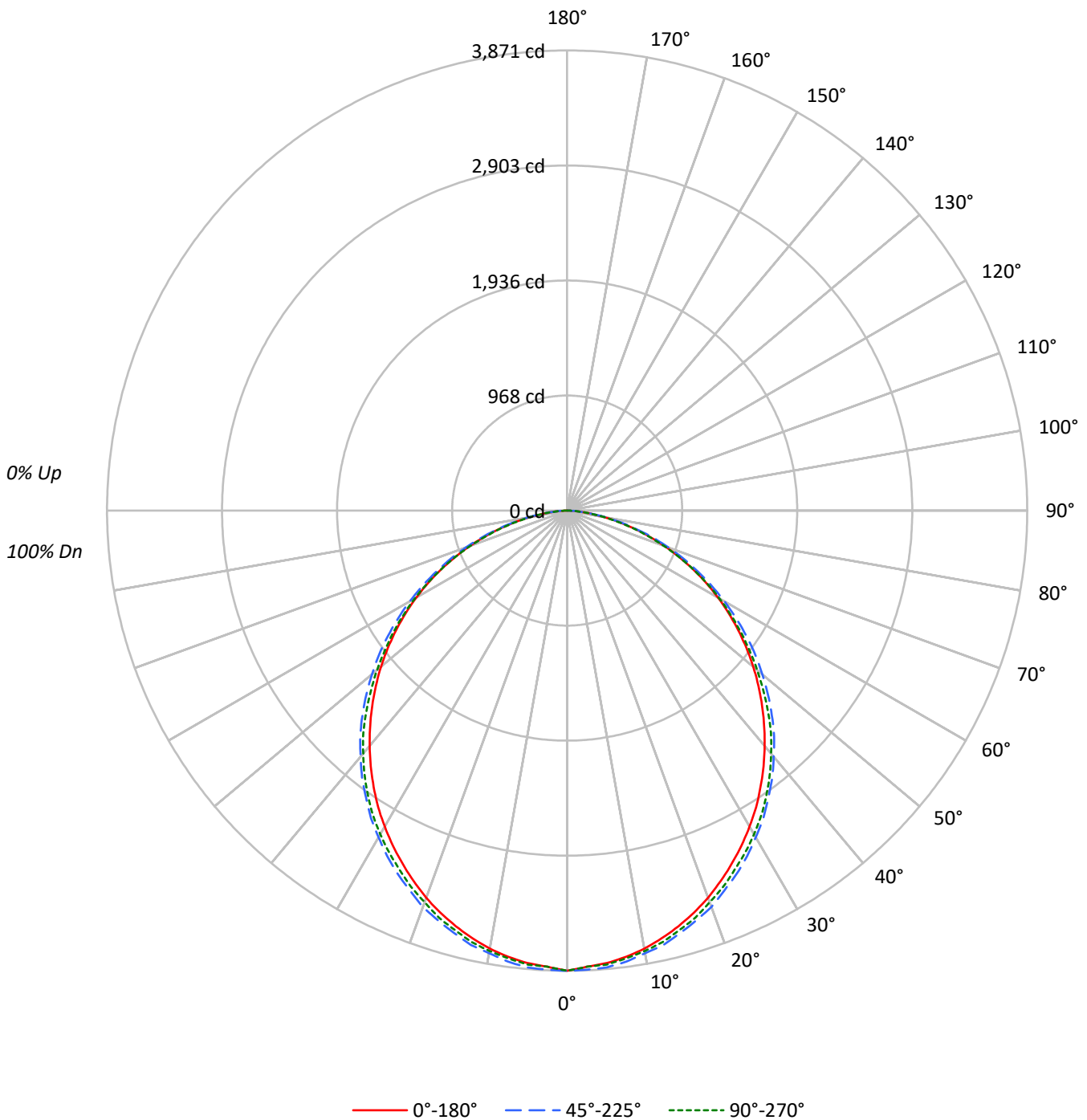
Lumens per Lamp: N/A
Luminaire Lumens: 10177.5 lumens
Efficiency: N/A
Efficacy: 78.5 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.21 / 1.34
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 129.6
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°	10417	10417	10417
5°	10321	10418	10353
10°	10226	10330	10280
15°	10085	10248	10176
20°	9926	10162	10039
25°	9733	10015	9900
30°	9536	9859	9769
35°	9321	9691	9601
40°	9079	9497	9376
45°	8824	9269	9094
50°	8559	8973	8738
55°	8248	8634	8369
60°	7897	8225	7971
65°	7442	7727	7448
70°	6848	7124	6772
75°	6030	6303	5938
80°	4900	5112	4844
85°	3412	3637	3548



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	364.6	3.6
10°-20°	1033.2	10.2
20°-30°	1540.9	15.1
30°-40°	1826.0	17.9
40°-50°	1847.6	18.2
50°-60°	1613.6	15.9
60°-70°	1179.2	11.6
70°-80°	627.4	6.2
80°-90°	145.0	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°	2938.7	28.9
0°-40°	4764.6	46.8
0°-60°	8225.9	80.8
0°-90°	10177.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	10177.5	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	3871	3871	3871	3871	3871	
5°	3821	3828	3857	3866	3833	362
15°	3620	3644	3678	3701	3653	1020
25°	3278	3318	3373	3386	3334	1510
35°	2837	2882	2950	2970	2922	1774
45°	2319	2360	2436	2438	2390	1789
55°	1758	1794	1840	1814	1784	1572
65°	1169	1193	1214	1189	1170	1157
75°	580	593	606	584	571	617
85°	110	112	118	119	115	140
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	3871.2	3871.2	3871.2	3871.2	3871.2
2.5°	3840.9	3853.4	3866.3	3872.0	3840.5
5°	3820.7	3828.0	3856.6	3865.5	3832.8
7.5°	3787.7	3798.6	3826.4	3830.4	3799.0
10°	3742.5	3761.9	3780.4	3800.6	3762.3
12.5°	3684.8	3711.0	3742.5	3746.1	3717.1
15°	3619.9	3644.1	3678.4	3700.6	3652.6
17.5°	3547.3	3570.7	3615.0	3619.1	3590.0
20°	3466.2	3495.3	3548.5	3557.8	3505.7
22.5°	3374.3	3413.4	3457.7	3466.6	3428.3
25°	3277.9	3318.2	3373.0	3385.5	3334.3
27.5°	3177.0	3215.7	3277.5	3286.3	3243.2
30°	3068.9	3105.2	3173.0	3187.9	3144.0
32.5°	2959.2	2995.5	3070.5	3083.1	3040.3
35°	2837.4	2881.8	2950.0	2970.5	2922.5
37.5°	2713.2	2756.4	2833.8	2852.3	2800.7
40°	2584.5	2627.3	2703.5	2718.8	2669.2
42.5°	2453.1	2495.8	2577.3	2579.7	2538.6
45°	2318.7	2359.9	2435.7	2437.7	2389.7
47.5°	2182.4	2224.0	2291.7	2284.1	2238.9
50°	2044.5	2084.0	2143.3	2128.0	2087.2
52.5°	1901.7	1940.0	1996.1	1971.1	1932.8
55°	1758.1	1793.6	1840.4	1813.8	1783.9
57.5°	1613.3	1649.2	1685.1	1658.1	1632.3
60°	1467.3	1498.8	1528.2	1500.8	1481.0
62.5°	1318.9	1345.9	1371.3	1345.1	1326.6
65°	1168.8	1192.6	1213.6	1189.4	1169.7
67.5°	1019.6	1039.8	1059.1	1034.1	1013.6
70°	870.4	887.7	905.5	879.7	860.7
72.5°	723.2	738.5	754.2	729.2	712.7
75°	580.0	593.3	606.2	584.0	571.1
77.5°	443.3	454.6	463.4	449.3	436.8
80°	316.2	324.7	329.9	324.3	312.6
82.5°	203.3	209.3	212.2	211.7	204.1
85°	110.5	112.5	117.8	119.0	114.9
87.5°	42.8	45.6	46.8	50.4	46.4
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)