

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: P488652

Luminaire Tested: **CLM-12-4-INS-A19156-LD4-1LO-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: P488652
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-LD4-1LO-27-120-EDD-90
Description: 1X4 CLM LED LUMINAIRE WITH A19156 LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

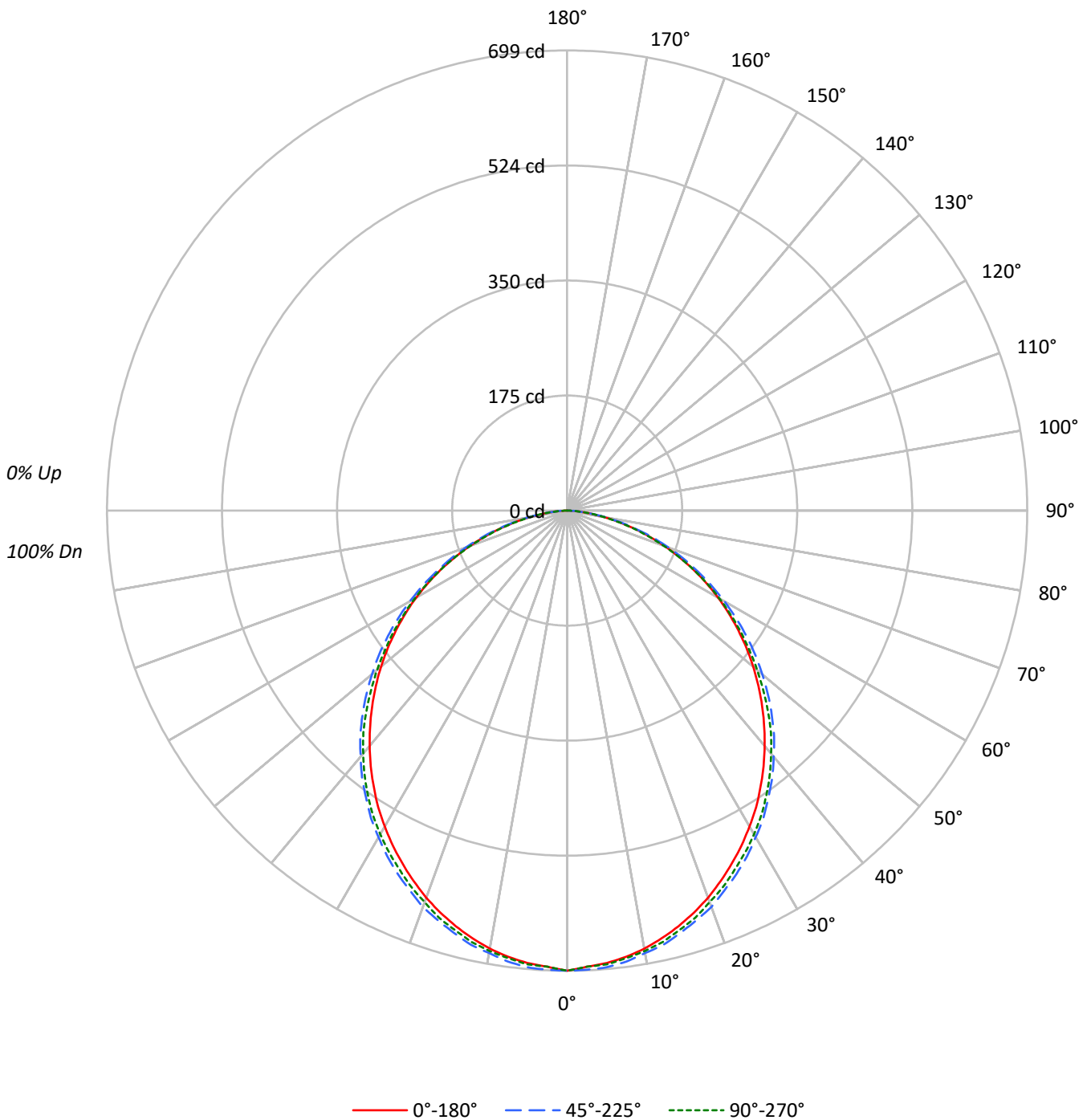
Lumens per Lamp: N/A
Luminaire Lumens: 1837.6 lumens
Efficiency: N/A
Efficacy: 78.5 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.21 / 1.34
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 23.4
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°	1881	1881	1881
5°	1864	1881	1869
10°	1846	1865	1856
15°	1821	1850	1837
20°	1792	1835	1813
25°	1757	1808	1787
30°	1722	1780	1764
35°	1683	1750	1734
40°	1639	1715	1693
45°	1593	1674	1642
50°	1545	1620	1578
55°	1489	1559	1511
60°	1426	1485	1439
65°	1344	1395	1345
70°	1237	1286	1223
75°	1089	1138	1072
80°	885	924	874
85°	618	658	642



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	65.8	3.6
10°-20°	186.5	10.2
20°-30°	278.2	15.1
30°-40°	329.7	17.9
40°-50°	333.6	18.2
50°-60°	291.4	15.9
60°-70°	212.9	11.6
70°-80°	113.3	6.2
80°-90°	26.2	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°	530.6	28.9
0°-40°	860.3	46.8
0°-60°	1485.2	80.8
0°-90°	1837.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1837.6	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	699	699	699	699	699	
5°	690	691	696	698	692	65
15°	654	658	664	668	660	184
25°	592	599	609	611	602	273
35°	512	520	533	536	528	320
45°	419	426	440	440	432	323
55°	317	324	332	328	322	284
65°	211	215	219	215	211	209
75°	105	107	110	105	103	111
85°	20	20	21	22	21	25
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	699.0	699.0	699.0	699.0	699.0
2.5°	693.5	695.8	698.1	699.1	693.4
5°	689.9	691.2	696.3	697.9	692.0
7.5°	683.9	685.8	690.9	691.6	685.9
10°	675.7	679.2	682.6	686.2	679.3
12.5°	665.3	670.0	675.7	676.4	671.1
15°	653.6	658.0	664.1	668.2	659.5
17.5°	640.5	644.7	652.7	653.4	648.2
20°	625.8	631.1	640.7	642.4	633.0
22.5°	609.2	616.3	624.3	625.9	619.0
25°	591.8	599.1	609.0	611.3	602.0
27.5°	573.6	580.6	591.8	593.4	585.6
30°	554.1	560.7	572.9	575.6	567.7
32.5°	534.3	540.9	554.4	556.7	548.9
35°	512.3	520.3	532.6	536.3	527.7
37.5°	489.9	497.7	511.7	515.0	505.7
40°	466.7	474.4	488.1	490.9	481.9
42.5°	442.9	450.6	465.3	465.8	458.3
45°	418.7	426.1	439.8	440.1	431.5
47.5°	394.0	401.5	413.8	412.4	404.2
50°	369.1	376.3	387.0	384.2	376.9
52.5°	343.4	350.3	360.4	355.9	349.0
55°	317.4	323.8	332.3	327.5	322.1
57.5°	291.3	297.8	304.3	299.4	294.7
60°	264.9	270.6	275.9	271.0	267.4
62.5°	238.1	243.0	247.6	242.9	239.5
65°	211.0	215.3	219.1	214.8	211.2
67.5°	184.1	187.7	191.2	186.7	183.0
70°	157.2	160.3	163.5	158.8	155.4
72.5°	130.6	133.3	136.2	131.7	128.7
75°	104.7	107.1	109.5	105.4	103.1
77.5°	80.0	82.1	83.7	81.1	78.9
80°	57.1	58.6	59.6	58.5	56.4
82.5°	36.7	37.8	38.3	38.2	36.8
85°	20.0	20.3	21.3	21.5	20.8
87.5°	7.7	8.2	8.4	9.1	8.4
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)