

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: P488658

Luminaire Tested: **CLM-12-4-INS-A19156-LD4-1LO-40-120-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: P488658
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-40-120-EDD-90
Description: 1X4 CLM LED LUMINAIRE WITH A19156 LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

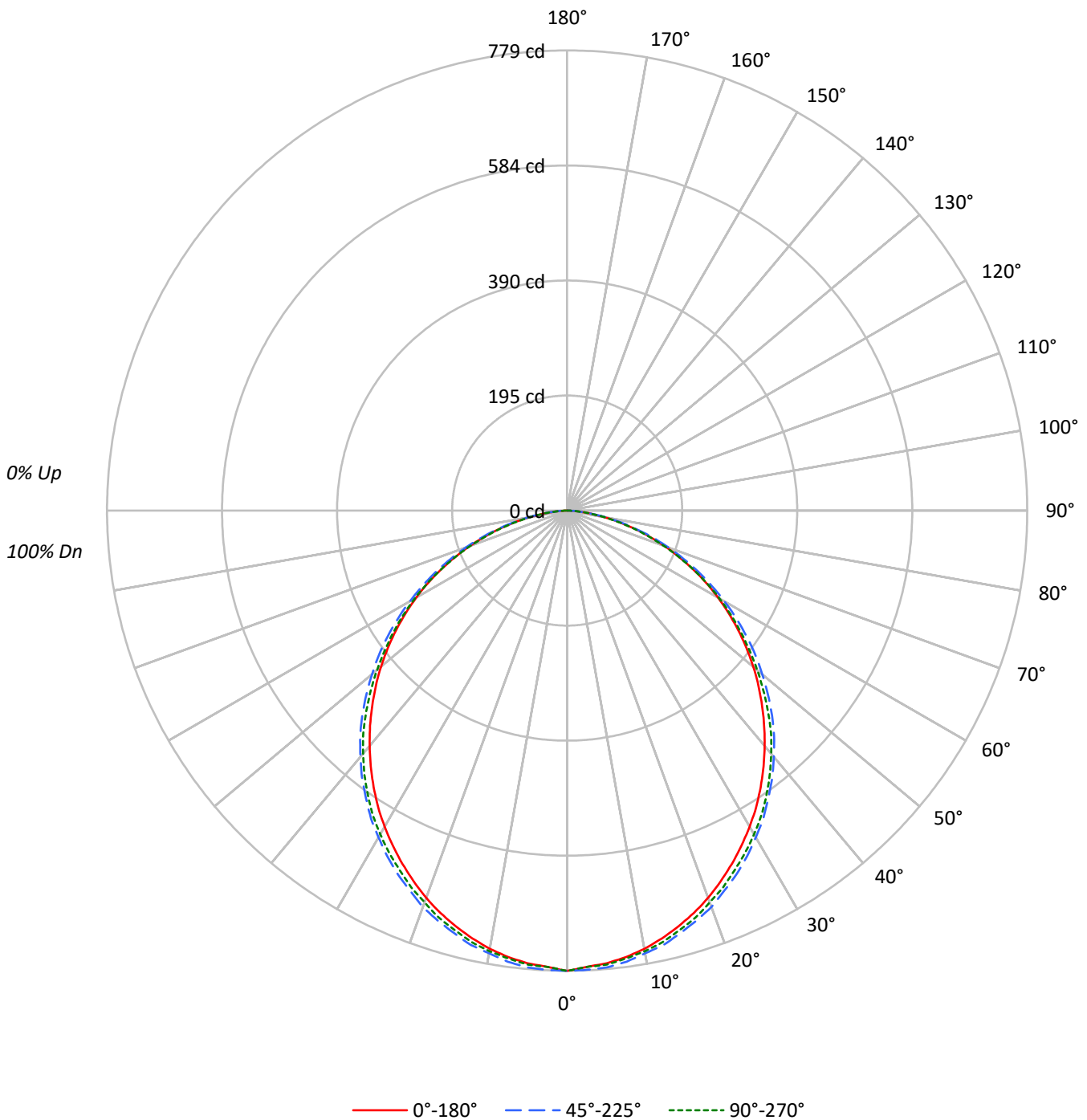
Lumens per Lamp: N/A
Luminaire Lumens: 2048.6 lumens
Efficiency: N/A
Efficacy: 87.5 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.21 / 1.34
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

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°	2097	2097	2097
5°	2078	2097	2084
10°	2058	2079	2069
15°	2030	2063	2048
20°	1998	2046	2021
25°	1959	2016	1993
30°	1919	1985	1966
35°	1876	1951	1933
40°	1827	1912	1887
45°	1776	1866	1831
50°	1723	1806	1759
55°	1660	1738	1685
60°	1590	1655	1604
65°	1498	1556	1499
70°	1378	1434	1363
75°	1213	1268	1196
80°	986	1029	975
85°	685	732	713



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	73.4	3.6
10°-20°	208.0	10.2
20°-30°	310.2	15.1
30°-40°	367.5	17.9
40°-50°	371.9	18.2
50°-60°	324.8	15.9
60°-70°	237.4	11.6
70°-80°	126.3	6.2
80°-90°	29.2	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°	591.5	28.9
0°-40°	959.1	46.8
0°-60°	1655.8	80.8
0°-90°	2048.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2048.6	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	779	779	779	779	779	
5°	769	770	776	778	772	73
15°	729	734	740	745	735	205
25°	660	668	679	682	671	304
35°	571	580	594	598	588	357
45°	467	475	490	491	481	360
55°	354	361	370	365	359	316
65°	235	240	244	239	235	233
75°	117	119	122	118	115	124
85°	22	23	24	24	23	28
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	779.2	779.2	779.2	779.2	779.2
2.5°	773.1	775.6	778.2	779.4	773.0
5°	769.1	770.5	776.3	778.1	771.5
7.5°	762.4	764.6	770.2	771.0	764.7
10°	753.3	757.2	760.9	765.0	757.3
12.5°	741.7	747.0	753.3	754.0	748.2
15°	728.6	733.5	740.4	744.9	735.2
17.5°	714.0	718.7	727.7	728.5	722.6
20°	697.7	703.6	714.3	716.1	705.7
22.5°	679.2	687.1	696.0	697.8	690.1
25°	659.8	667.9	679.0	681.5	671.2
27.5°	639.5	647.3	659.7	661.5	652.8
30°	617.7	625.0	638.7	641.7	632.8
32.5°	595.7	603.0	618.1	620.6	612.0
35°	571.1	580.1	593.8	597.9	588.3
37.5°	546.1	554.8	570.4	574.1	563.7
40°	520.2	528.8	544.2	547.3	537.3
42.5°	493.8	502.4	518.8	519.3	511.0
45°	466.7	475.0	490.3	490.7	481.0
47.5°	439.3	447.7	461.3	459.8	450.7
50°	411.5	419.5	431.4	428.3	420.1
52.5°	382.8	390.5	401.8	396.8	389.0
55°	353.9	361.0	370.4	365.1	359.1
57.5°	324.7	332.0	339.2	333.8	328.6
60°	295.4	301.7	307.6	302.1	298.1
62.5°	265.5	270.9	276.0	270.8	267.0
65°	235.3	240.1	244.3	239.4	235.4
67.5°	205.2	209.3	213.2	208.2	204.0
70°	175.2	178.7	182.3	177.1	173.2
72.5°	145.6	148.6	151.8	146.8	143.5
75°	116.7	119.4	122.0	117.6	115.0
77.5°	89.2	91.5	93.3	90.4	87.9
80°	63.6	65.4	66.4	65.3	62.9
82.5°	40.9	42.1	42.7	42.6	41.1
85°	22.2	22.7	23.7	23.9	23.1
87.5°	8.6	9.2	9.4	10.1	9.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)