

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: P488663

Luminaire Tested: **CLM-12-4-INS-A19156-LD4-1STD-20-120-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: P488663
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-LD4-1STD-20-120-EDD
Description: 1X4 CLM LED LUMINAIRE WITH A19156 LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

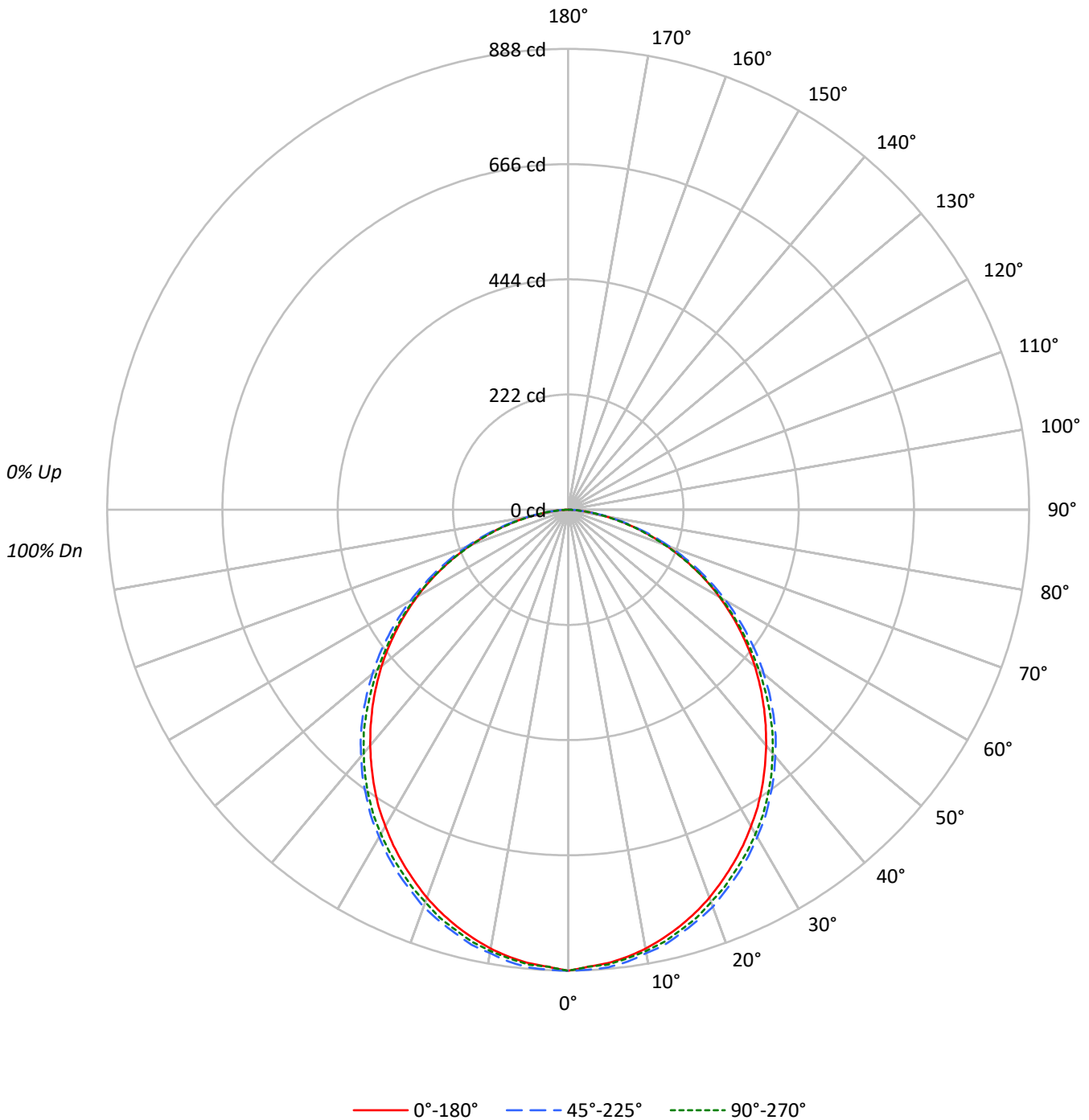
Lumens per Lamp: N/A
Luminaire Lumens: 2336.0 lumens
Efficiency: N/A
Efficacy: 70.2 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.21 / 1.34
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 33.3
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°	2391	2391	2391
5°	2369	2391	2376
10°	2347	2371	2360
15°	2315	2352	2336
20°	2278	2332	2304
25°	2234	2299	2272
30°	2189	2263	2242
35°	2140	2224	2204
40°	2084	2180	2152
45°	2025	2128	2087
50°	1965	2059	2006
55°	1893	1982	1921
60°	1813	1888	1829
65°	1708	1774	1710
70°	1572	1635	1555
75°	1384	1446	1363
80°	1125	1173	1111
85°	784	834	815



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	83.7	3.6
10°-20°	237.1	10.2
20°-30°	353.7	15.1
30°-40°	419.1	17.9
40°-50°	424.1	18.2
50°-60°	370.4	15.9
60°-70°	270.7	11.6
70°-80°	144.0	6.2
80°-90°	33.3	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°	674.5	28.9
0°-40°	1093.6	46.8
0°-60°	1888.1	80.8
0°-90°	2336.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2336.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	888	888	888	888	888	
5°	877	879	885	887	880	83
15°	831	836	844	849	838	234
25°	752	762	774	777	765	347
35°	651	661	677	682	671	407
45°	532	542	559	560	548	411
55°	404	412	422	416	410	361
65°	268	274	279	273	268	265
75°	133	136	139	134	131	142
85°	25	26	27	27	26	32
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	888.5	888.5	888.5	888.5	888.5
2.5°	881.6	884.5	887.4	888.7	881.5
5°	877.0	878.6	885.2	887.2	879.7
7.5°	869.4	871.9	878.3	879.2	872.0
10°	859.0	863.4	867.7	872.3	863.5
12.5°	845.8	851.8	859.0	859.8	853.2
15°	830.9	836.4	844.3	849.4	838.4
17.5°	814.2	819.6	829.7	830.7	824.0
20°	795.6	802.3	814.5	816.6	804.7
22.5°	774.5	783.5	793.6	795.7	786.9
25°	752.4	761.6	774.2	777.1	765.3
27.5°	729.2	738.1	752.3	754.3	744.4
30°	704.4	712.7	728.3	731.7	721.6
32.5°	679.2	687.6	704.8	707.6	697.8
35°	651.3	661.4	677.1	681.8	670.8
37.5°	622.7	632.7	650.4	654.7	642.8
40°	593.2	603.0	620.5	624.0	612.7
42.5°	563.0	572.9	591.6	592.1	582.7
45°	532.2	541.7	559.1	559.5	548.5
47.5°	500.9	510.5	526.0	524.3	513.9
50°	469.3	478.3	491.9	488.4	479.1
52.5°	436.5	445.3	458.2	452.4	443.6
55°	403.5	411.7	422.4	416.3	409.5
57.5°	370.3	378.5	386.8	380.6	374.6
60°	336.8	344.0	350.8	344.5	339.9
62.5°	302.7	308.9	314.8	308.7	304.5
65°	268.3	273.7	278.6	273.0	268.5
67.5°	234.0	238.7	243.1	237.4	232.6
70°	199.8	203.8	207.8	201.9	197.6
72.5°	166.0	169.5	173.1	167.4	163.6
75°	133.1	136.2	139.1	134.0	131.1
77.5°	101.7	104.3	106.4	103.1	100.3
80°	72.6	74.5	75.7	74.4	71.7
82.5°	46.7	48.0	48.7	48.6	46.8
85°	25.4	25.8	27.0	27.3	26.4
87.5°	9.8	10.5	10.7	11.6	10.6
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)