

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: P489038

Luminaire Tested: **CLM-24-2-INS-A19156-LD4-1HI-30-120-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: P489038
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-24-2-INS-A19156-LD4-1HI-30-120-EDD-90
Description: 2X2 CLM LED LUMINAIRE WITH A19156 LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

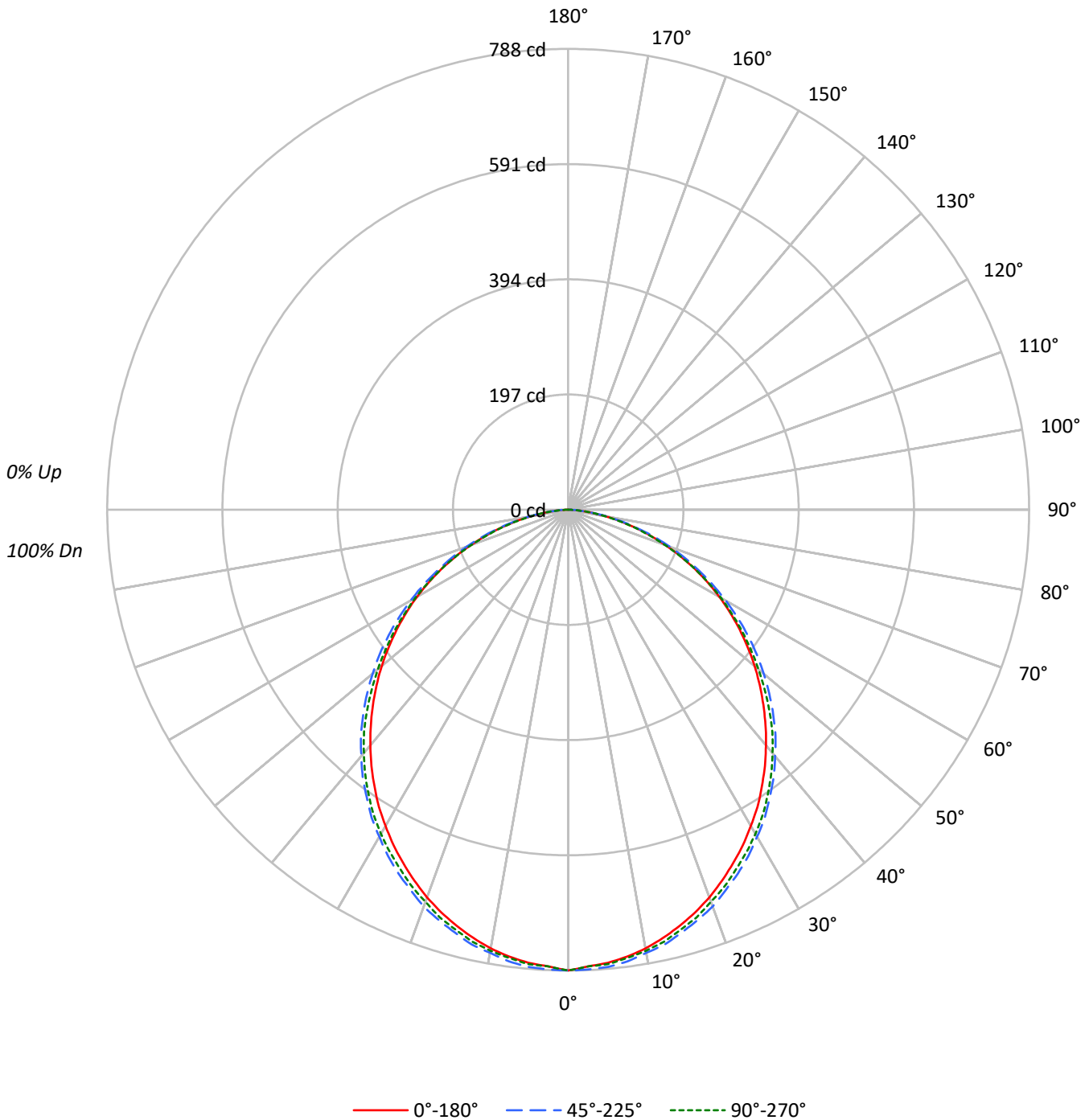
Lumens per Lamp: N/A
Luminaire Lumens: 2071.4 lumens
Efficiency: N/A
Efficacy: 95.9 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.21 / 1.34
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

Input Watts (W): 21.6
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°	2120	2120	2120
5°	2100	2120	2107
10°	2081	2102	2092
15°	2052	2086	2071
20°	2020	2068	2043
25°	1981	2038	2015
30°	1941	2007	1988
35°	1897	1972	1954
40°	1848	1933	1909
45°	1796	1886	1851
50°	1742	1826	1778
55°	1679	1757	1704
60°	1607	1674	1622
65°	1515	1573	1516
70°	1393	1450	1378
75°	1227	1283	1208
80°	998	1040	986
85°	695	741	722



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	74.2	3.6
10°-20°	210.3	10.2
20°-30°	313.6	15.1
30°-40°	371.6	17.9
40°-50°	376.0	18.2
50°-60°	328.4	15.9
60°-70°	240.0	11.6
70°-80°	127.7	6.2
80°-90°	29.5	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°	598.1	28.9
0°-40°	969.7	46.8
0°-60°	1674.2	80.8
0°-90°	2071.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2071.4	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	788	788	788	788	788	
5°	778	779	785	787	780	74
15°	737	742	749	753	743	208
25°	667	675	686	689	679	307
35°	578	586	600	605	595	361
45°	472	480	496	496	486	364
55°	358	365	375	369	363	320
65°	238	243	247	242	238	235
75°	118	121	123	119	116	125
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°	787.9	787.9	787.9	787.9	787.9
2.5°	781.7	784.3	786.9	788.1	781.6
5°	777.6	779.1	784.9	786.7	780.1
7.5°	770.9	773.1	778.8	779.6	773.2
10°	761.7	765.6	769.4	773.5	765.7
12.5°	750.0	755.3	761.7	762.4	756.5
15°	736.7	741.7	748.6	753.2	743.4
17.5°	722.0	726.7	735.8	736.6	730.7
20°	705.5	711.4	722.2	724.1	713.5
22.5°	686.8	694.7	703.7	705.6	697.8
25°	667.1	675.3	686.5	689.1	678.6
27.5°	646.6	654.5	667.1	668.9	660.1
30°	624.6	632.0	645.8	648.8	639.9
32.5°	602.3	609.7	624.9	627.5	618.8
35°	577.5	586.5	600.4	604.6	594.8
37.5°	552.2	561.0	576.8	580.5	570.0
40°	526.0	534.7	550.2	553.4	543.3
42.5°	499.3	508.0	524.5	525.0	516.7
45°	471.9	480.3	495.7	496.1	486.4
47.5°	444.2	452.6	466.4	464.9	455.7
50°	416.1	424.2	436.2	433.1	424.8
52.5°	387.0	394.8	406.3	401.2	393.4
55°	357.8	365.0	374.6	369.2	363.1
57.5°	328.4	335.7	343.0	337.5	332.2
60°	298.6	305.0	311.0	305.5	301.4
62.5°	268.4	273.9	279.1	273.8	270.0
65°	237.9	242.7	247.0	242.1	238.1
67.5°	207.5	211.6	215.6	210.5	206.3
70°	177.1	180.7	184.3	179.0	175.2
72.5°	147.2	150.3	153.5	148.4	145.1
75°	118.0	120.8	123.4	118.9	116.2
77.5°	90.2	92.5	94.3	91.4	88.9
80°	64.4	66.1	67.1	66.0	63.6
82.5°	41.4	42.6	43.2	43.1	41.5
85°	22.5	22.9	24.0	24.2	23.4
87.5°	8.7	9.3	9.5	10.3	9.4
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)