

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: P489042

Luminaire Tested: **CLM-24-2-INS-A19156-LD4-1HI-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: P489042
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-40-120-EDD-90
Description: 2X2 CLM LED LUMINAIRE WITH A19156 LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

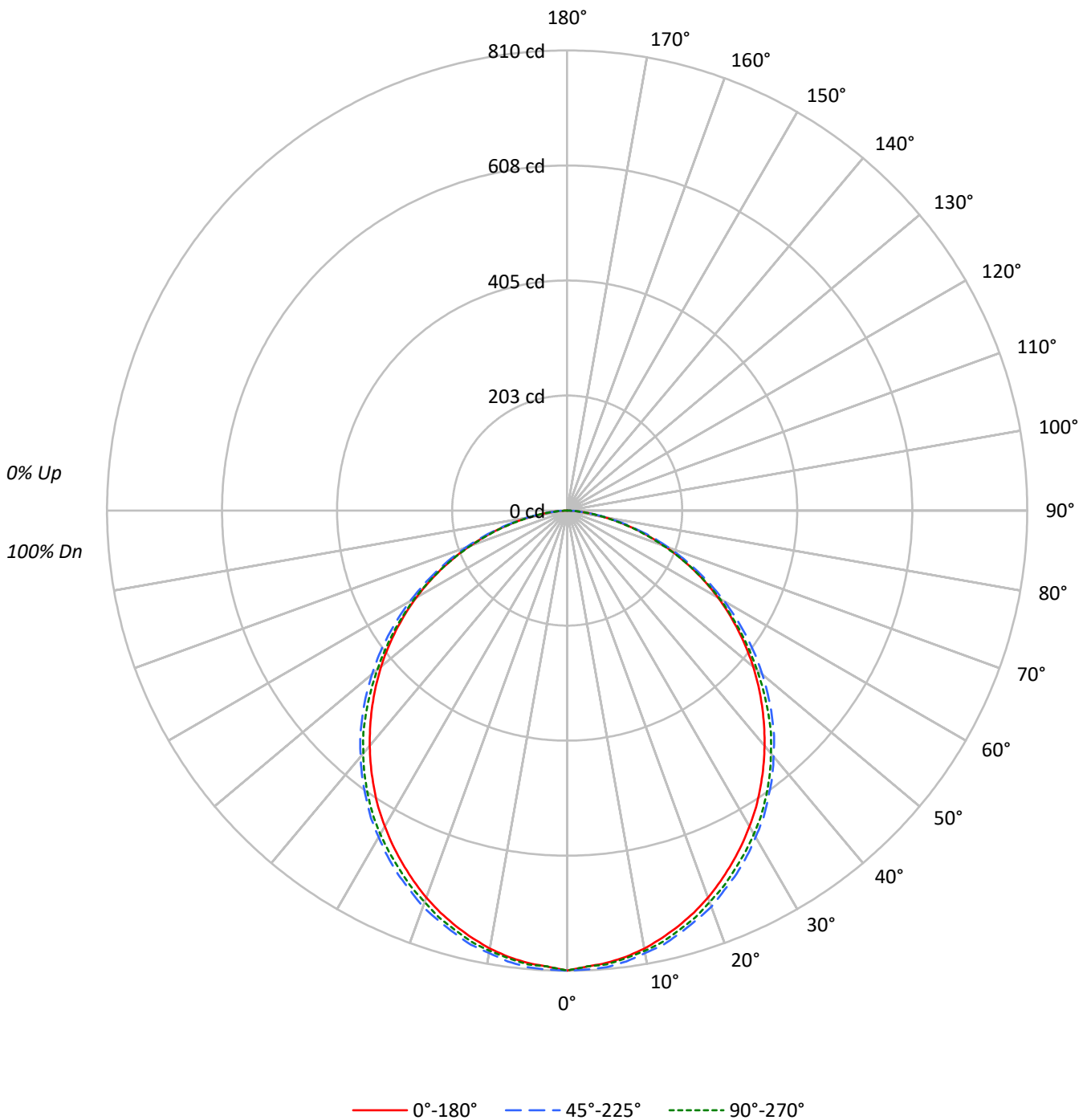
Lumens per Lamp: N/A
Luminaire Lumens: 2128.8 lumens
Efficiency: N/A
Efficacy: 98.6 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.21 / 1.34
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

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°	2179	2179	2179
5°	2159	2179	2166
10°	2139	2161	2150
15°	2109	2143	2128
20°	2076	2125	2100
25°	2036	2095	2071
30°	1995	2062	2043
35°	1950	2027	2008
40°	1899	1987	1961
45°	1846	1939	1902
50°	1790	1877	1828
55°	1725	1806	1750
60°	1652	1721	1667
65°	1557	1616	1558
70°	1433	1490	1416
75°	1261	1318	1242
80°	1024	1069	1013
85°	713	760	741



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	76.3	3.6
10°-20°	216.1	10.2
20°-30°	322.3	15.1
30°-40°	381.9	17.9
40°-50°	386.5	18.2
50°-60°	337.5	15.9
60°-70°	246.6	11.6
70°-80°	131.2	6.2
80°-90°	30.3	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°	614.7	28.9
0°-40°	996.6	46.8
0°-60°	1720.6	80.8
0°-90°	2128.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2128.8	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	810	810	810	810	810	
5°	799	801	807	808	802	76
15°	757	762	769	774	764	213
25°	686	694	706	708	697	316
35°	594	603	617	621	611	371
45°	485	494	510	510	500	374
55°	368	375	385	379	373	329
65°	244	250	254	249	245	242
75°	121	124	127	122	120	129
85°	23	24	25	25	24	29
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	809.7	809.7	809.7	809.7	809.7
2.5°	803.4	806.0	808.7	809.9	803.3
5°	799.2	800.7	806.7	808.5	801.7
7.5°	792.3	794.5	800.4	801.2	794.6
10°	782.8	786.9	790.7	795.0	786.9
12.5°	770.7	776.2	782.8	783.6	777.5
15°	757.2	762.2	769.4	774.0	764.0
17.5°	742.0	746.9	756.1	757.0	750.9
20°	725.0	731.1	742.2	744.2	733.3
22.5°	705.8	714.0	723.2	725.1	717.1
25°	685.6	694.1	705.5	708.1	697.4
27.5°	664.5	672.6	685.5	687.4	678.4
30°	641.9	649.5	663.7	666.8	657.6
32.5°	619.0	626.6	642.3	644.9	635.9
35°	593.5	602.8	617.0	621.3	611.3
37.5°	567.5	576.5	592.7	596.6	585.8
40°	540.6	549.5	565.5	568.7	558.3
42.5°	513.1	522.0	539.1	539.6	531.0
45°	485.0	493.6	509.5	509.9	499.9
47.5°	456.5	465.2	479.4	477.7	468.3
50°	427.6	435.9	448.3	445.1	436.6
52.5°	397.8	405.8	417.5	412.3	404.3
55°	367.7	375.2	385.0	379.4	373.1
57.5°	337.5	345.0	352.5	346.8	341.4
60°	306.9	313.5	319.7	313.9	309.8
62.5°	275.9	281.5	286.8	281.4	277.5
65°	244.5	249.5	253.8	248.8	244.7
67.5°	213.3	217.5	221.5	216.3	212.0
70°	182.1	185.7	189.4	184.0	180.0
72.5°	151.3	154.5	157.8	152.5	149.1
75°	121.3	124.1	126.8	122.2	119.5
77.5°	92.7	95.1	96.9	94.0	91.4
80°	66.1	67.9	69.0	67.8	65.4
82.5°	42.5	43.8	44.4	44.3	42.7
85°	23.1	23.5	24.6	24.9	24.0
87.5°	8.9	9.5	9.8	10.5	9.7
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)