

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: P489063

Luminaire Tested: **CLM-24-2-INS-A19156-LD4-1STD-30-120-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: P489063
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-LD4-1STD-30-120-EDD
Description: 2X2 CLM LED LUMINAIRE WITH A19156 LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

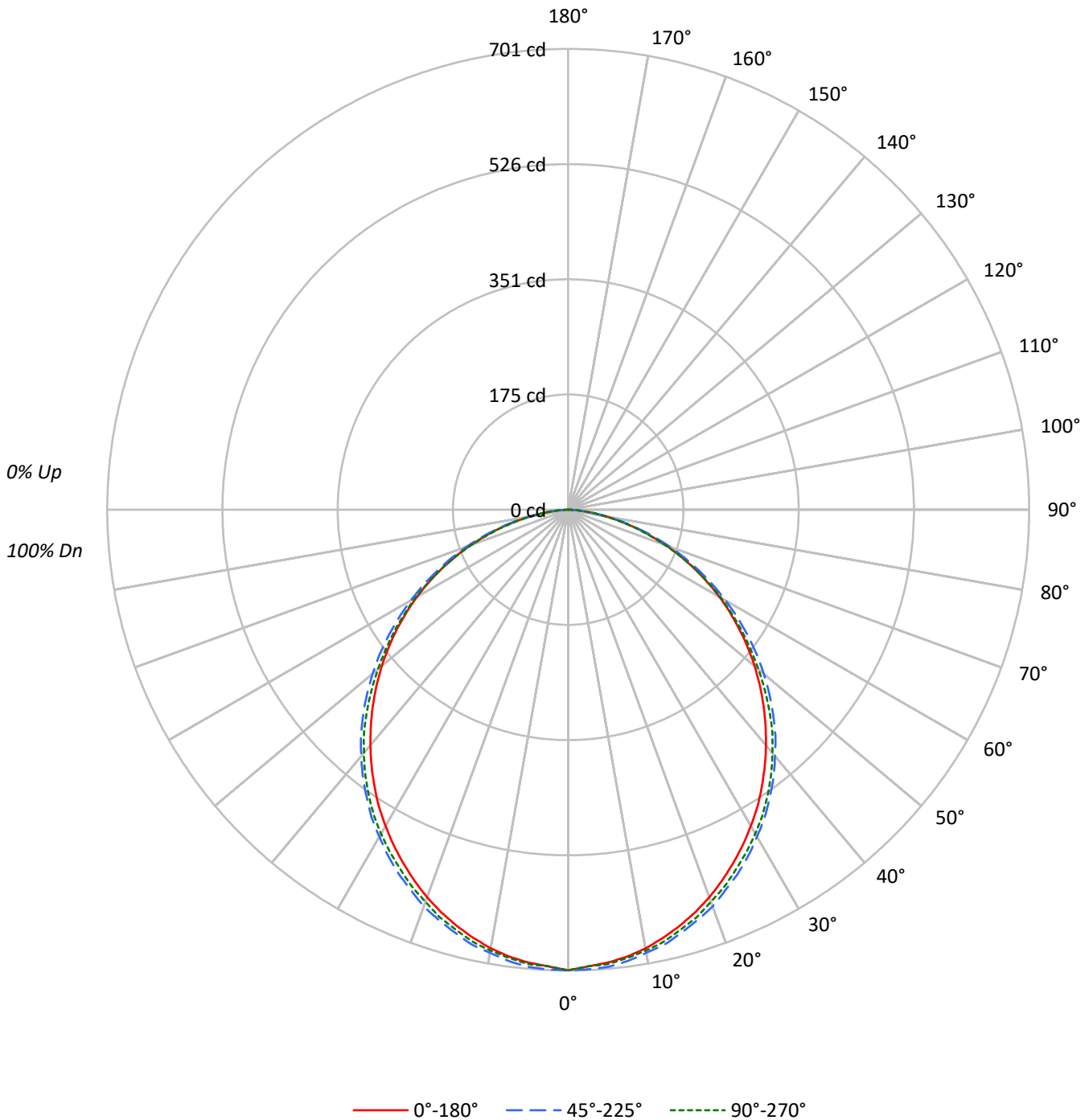
Lumens per Lamp: N/A
Luminaire Lumens: 1842.3 lumens
Efficiency: N/A
Efficacy: 111.0 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.21 / 1.34
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

Input Watts (W): 16.6
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	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°	1886	1886	1886
5°	1868	1886	1874
10°	1851	1870	1861
15°	1826	1855	1842
20°	1797	1839	1817
25°	1762	1813	1792
30°	1726	1785	1768
35°	1687	1754	1738
40°	1643	1719	1697
45°	1597	1678	1646
50°	1549	1624	1582
55°	1493	1563	1515
60°	1429	1489	1443
65°	1347	1399	1348
70°	1240	1290	1226
75°	1092	1141	1075
80°	886	925	877
85°	618	658	642



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	66.0	3.6
10°-20°	187.0	10.2
20°-30°	278.9	15.1
30°-40°	330.5	17.9
40°-50°	334.5	18.2
50°-60°	292.1	15.9
60°-70°	213.4	11.6
70°-80°	113.6	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°	531.9	28.9
0°-40°	862.5	46.8
0°-60°	1489.0	80.8
0°-90°	1842.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1842.3	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	701	701	701	701	701	
5°	692	693	698	700	694	66
15°	655	660	666	670	661	185
25°	593	601	611	613	604	273
35°	514	522	534	538	529	321
45°	420	427	441	441	433	324
55°	318	325	333	328	323	284
65°	212	216	220	215	212	209
75°	105	107	110	106	103	112
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°	700.7	700.7	700.7	700.7	700.7
2.5°	695.3	697.5	699.9	700.9	695.2
5°	691.6	692.9	698.1	699.7	693.8
7.5°	685.6	687.6	692.6	693.4	687.7
10°	677.5	681.0	684.3	688.0	681.0
12.5°	667.0	671.8	677.5	678.1	672.9
15°	655.3	659.6	665.8	669.9	661.2
17.5°	642.1	646.4	654.4	655.1	649.9
20°	627.4	632.7	642.3	644.0	634.6
22.5°	610.8	617.9	625.9	627.5	620.6
25°	593.3	600.6	610.6	612.8	603.6
27.5°	575.1	582.1	593.3	594.9	587.1
30°	555.5	562.1	574.4	577.1	569.1
32.5°	535.7	542.2	555.8	558.1	550.3
35°	513.6	521.7	534.0	537.7	529.0
37.5°	491.1	498.9	513.0	516.3	507.0
40°	467.8	475.6	489.4	492.2	483.2
42.5°	444.0	451.8	466.5	467.0	459.5
45°	419.7	427.2	440.9	441.3	432.6
47.5°	395.1	402.6	414.8	413.5	405.3
50°	370.1	377.2	388.0	385.2	377.8
52.5°	344.2	351.2	361.3	356.8	349.9
55°	318.2	324.7	333.1	328.3	322.9
57.5°	292.0	298.5	305.0	300.1	295.5
60°	265.6	271.3	276.6	271.7	268.1
62.5°	238.7	243.6	248.2	243.5	240.1
65°	211.6	215.9	219.7	215.3	211.7
67.5°	184.6	188.2	191.7	187.2	183.5
70°	157.6	160.7	163.9	159.2	155.8
72.5°	130.9	133.7	136.5	132.0	129.0
75°	105.0	107.4	109.7	105.7	103.4
77.5°	80.2	82.3	83.9	81.3	79.1
80°	57.2	58.8	59.7	58.7	56.6
82.5°	36.8	37.9	38.4	38.3	36.9
85°	20.0	20.4	21.3	21.5	20.8
87.5°	7.7	8.3	8.5	9.1	8.4
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)