

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: P489036

Luminaire Tested: **CLM-24-2-INS-A19156-LD4-1HI-27-120-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: P489036
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-27-120-EDD-90
Description: 2X2 CLM LED LUMINAIRE WITH A19156 LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

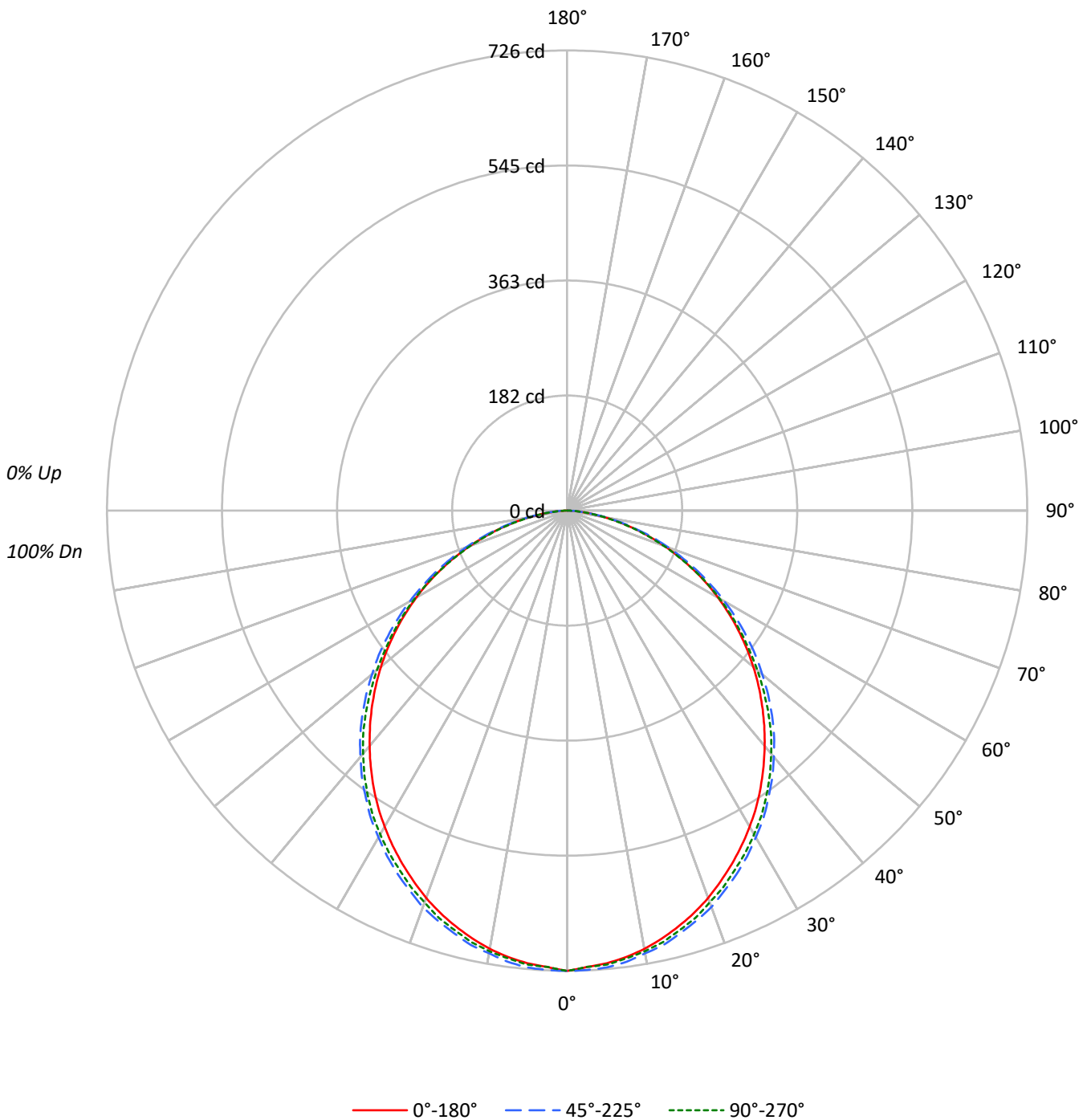
Lumens per Lamp: N/A
Luminaire Lumens: 1909.6 lumens
Efficiency: N/A
Efficacy: 88.4 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.21 / 1.34
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

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°	1954	1954	1954
5°	1937	1955	1943
10°	1919	1938	1929
15°	1892	1923	1909
20°	1863	1907	1884
25°	1826	1879	1858
30°	1789	1850	1833
35°	1749	1818	1802
40°	1703	1782	1759
45°	1656	1739	1706
50°	1606	1683	1639
55°	1548	1620	1570
60°	1482	1543	1496
65°	1396	1450	1398
70°	1285	1337	1271
75°	1131	1182	1115
80°	919	959	908
85°	639	682	667



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	68.4	3.6
10°-20°	193.9	10.2
20°-30°	289.1	15.1
30°-40°	342.6	17.9
40°-50°	346.7	18.2
50°-60°	302.8	15.9
60°-70°	221.2	11.6
70°-80°	117.7	6.2
80°-90°	27.2	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°	551.4	28.9
0°-40°	894.0	46.8
0°-60°	1543.4	80.8
0°-90°	1909.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1909.6	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	726	726	726	726	726	
5°	717	718	724	725	719	68
15°	679	684	690	694	685	191
25°	615	623	633	635	626	283
35°	532	541	554	557	548	333
45°	435	443	457	457	448	336
55°	330	336	345	340	335	295
65°	219	224	228	223	220	217
75°	109	111	114	110	107	116
85°	21	21	22	22	22	26
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	726.3	726.3	726.3	726.3	726.3
2.5°	720.7	723.0	725.4	726.5	720.6
5°	716.9	718.2	723.6	725.3	719.2
7.5°	710.7	712.7	717.9	718.7	712.8
10°	702.2	705.8	709.3	713.1	705.9
12.5°	691.4	696.3	702.2	702.9	697.4
15°	679.2	683.7	690.2	694.3	685.3
17.5°	665.6	670.0	678.3	679.0	673.6
20°	650.4	655.8	665.8	667.5	657.8
22.5°	633.1	640.5	648.8	650.4	643.3
25°	615.0	622.6	632.9	635.2	625.6
27.5°	596.1	603.4	614.9	616.6	608.5
30°	575.8	582.6	595.3	598.1	589.9
32.5°	555.2	562.1	576.1	578.5	570.5
35°	532.4	540.7	553.5	557.4	548.4
37.5°	509.1	517.2	531.7	535.2	525.5
40°	484.9	493.0	507.3	510.1	500.8
42.5°	460.3	468.3	483.6	484.0	476.3
45°	435.1	442.8	457.0	457.4	448.4
47.5°	409.5	417.3	430.0	428.6	420.1
50°	383.6	391.0	402.1	399.3	391.6
52.5°	356.8	364.0	374.5	369.8	362.6
55°	329.9	336.5	345.3	340.3	334.7
57.5°	302.7	309.4	316.2	311.1	306.3
60°	275.3	281.2	286.7	281.6	277.9
62.5°	247.5	252.5	257.3	252.4	248.9
65°	219.3	223.8	227.7	223.2	219.5
67.5°	191.3	195.1	198.7	194.0	190.2
70°	163.3	166.6	169.9	165.1	161.5
72.5°	135.7	138.6	141.5	136.8	133.7
75°	108.8	111.3	113.7	109.6	107.2
77.5°	83.2	85.3	87.0	84.3	82.0
80°	59.3	60.9	61.9	60.8	58.6
82.5°	38.1	39.3	39.8	39.7	38.3
85°	20.7	21.1	22.1	22.3	21.6
87.5°	8.0	8.6	8.8	9.5	8.7
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)