

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: P489044

Luminaire Tested: **CLM-24-2-INS-A19156-LD4-1HI-50-120-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: P489044
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-50-120-EDD-90
Description: 2X2 CLM LED LUMINAIRE WITH A19156 LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

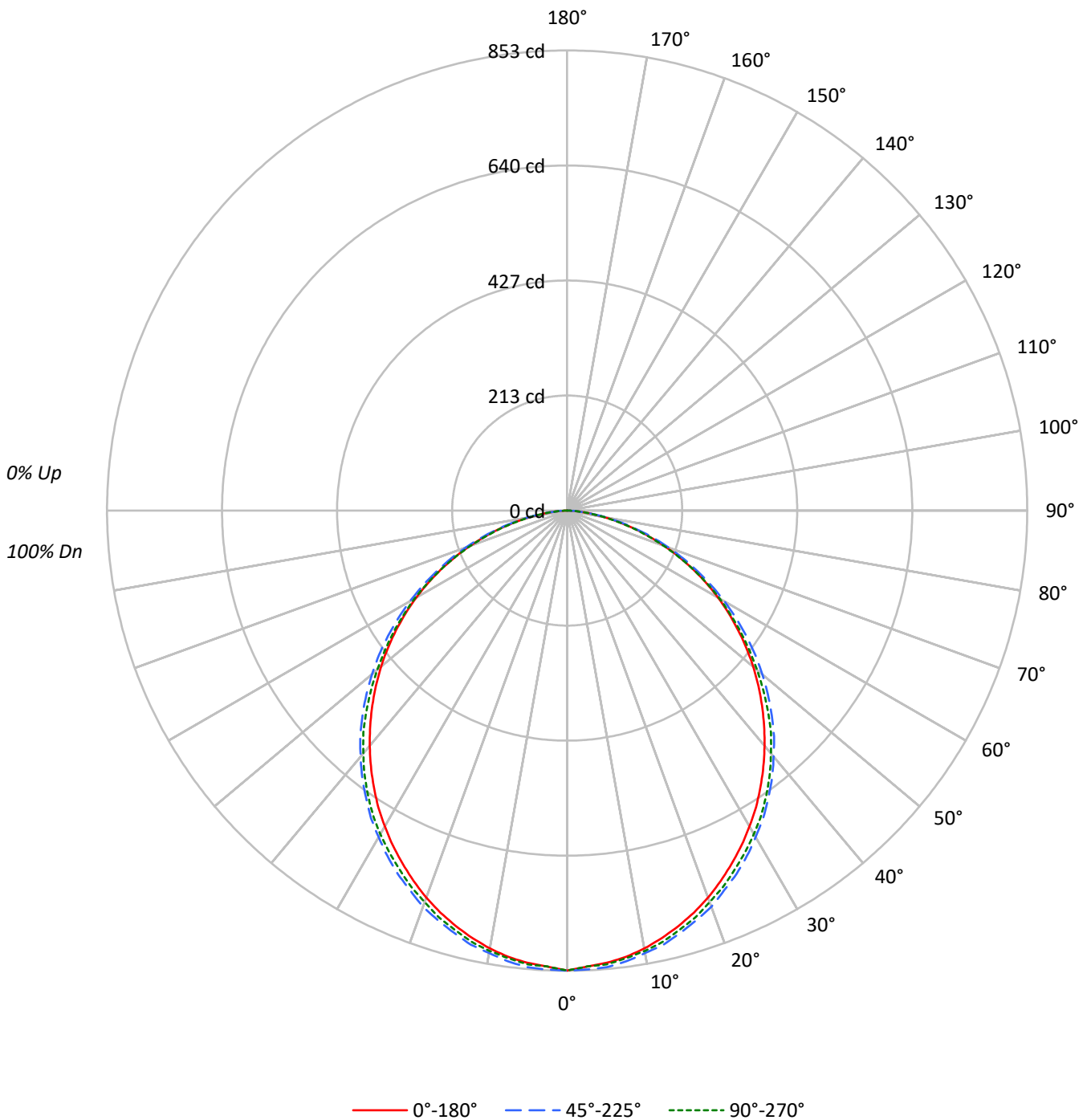
Lumens per Lamp: N/A
Luminaire Lumens: 2241.7 lumens
Efficiency: N/A
Efficacy: 103.8 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.21 / 1.34
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

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°	2295	2295	2295
5°	2273	2295	2280
10°	2252	2275	2264
15°	2221	2257	2241
20°	2186	2238	2211
25°	2144	2206	2181
30°	2101	2172	2152
35°	2053	2135	2115
40°	2000	2092	2065
45°	1944	2042	2003
50°	1885	1976	1924
55°	1817	1902	1843
60°	1739	1812	1756
65°	1640	1702	1640
70°	1508	1569	1492
75°	1328	1388	1308
80°	1079	1127	1066
85°	750	800	781



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	80.3	3.6
10°-20°	227.6	10.2
20°-30°	339.4	15.1
30°-40°	402.2	17.9
40°-50°	407.0	18.2
50°-60°	355.4	15.9
60°-70°	259.7	11.6
70°-80°	138.2	6.2
80°-90°	31.9	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°	647.3	28.9
0°-40°	1049.5	46.8
0°-60°	1811.9	80.8
0°-90°	2241.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2241.7	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	853	853	853	853	853	
5°	842	843	850	851	844	80
15°	797	803	810	815	804	225
25°	722	731	743	746	734	333
35°	625	635	650	654	644	391
45°	511	520	536	537	526	394
55°	387	395	405	400	393	346
65°	258	263	267	262	258	255
75°	128	131	134	129	126	136
85°	24	25	26	26	25	31
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	852.7	852.7	852.7	852.7	852.7
2.5°	846.0	848.8	851.6	852.8	845.9
5°	841.6	843.2	849.5	851.4	844.2
7.5°	834.3	836.7	842.8	843.7	836.8
10°	824.3	828.6	832.7	837.1	828.7
12.5°	811.6	817.4	824.3	825.1	818.7
15°	797.3	802.6	810.2	815.1	804.5
17.5°	781.3	786.5	796.3	797.1	790.7
20°	763.5	769.9	781.6	783.6	772.2
22.5°	743.2	751.8	761.6	763.6	755.1
25°	722.0	730.9	742.9	745.7	734.4
27.5°	699.8	708.3	721.9	723.8	714.3
30°	676.0	684.0	698.9	702.2	692.5
32.5°	651.8	659.8	676.3	679.1	669.7
35°	625.0	634.7	649.8	654.3	643.7
37.5°	597.6	607.1	624.2	628.3	616.9
40°	569.3	578.7	595.5	598.9	587.9
42.5°	540.3	549.7	567.7	568.2	559.1
45°	510.7	519.8	536.5	536.9	526.4
47.5°	480.7	489.9	504.8	503.1	493.1
50°	450.3	459.0	472.1	468.7	459.7
52.5°	418.9	427.3	439.7	434.1	425.7
55°	387.2	395.1	405.4	399.5	392.9
57.5°	355.4	363.3	371.2	365.2	359.5
60°	323.2	330.1	336.6	330.6	326.2
62.5°	290.5	296.5	302.0	296.3	292.2
65°	257.5	262.7	267.3	262.0	257.6
67.5°	224.6	229.0	233.3	227.8	223.2
70°	191.7	195.5	199.4	193.8	189.6
72.5°	159.3	162.7	166.1	160.6	157.0
75°	127.7	130.7	133.5	128.6	125.8
77.5°	97.6	100.1	102.1	99.0	96.2
80°	69.6	71.5	72.7	71.4	68.8
82.5°	44.8	46.1	46.7	46.6	45.0
85°	24.3	24.8	25.9	26.2	25.3
87.5°	9.4	10.0	10.3	11.1	10.2
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)