

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: P489086

Luminaire Tested: **CLM-24-2-INS-A19156-LD4-2LO-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: P489086
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-LD4-2LO-30-120-EDD-90
Description: 2X2 CLM LED LUMINAIRE WITH A19156 LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

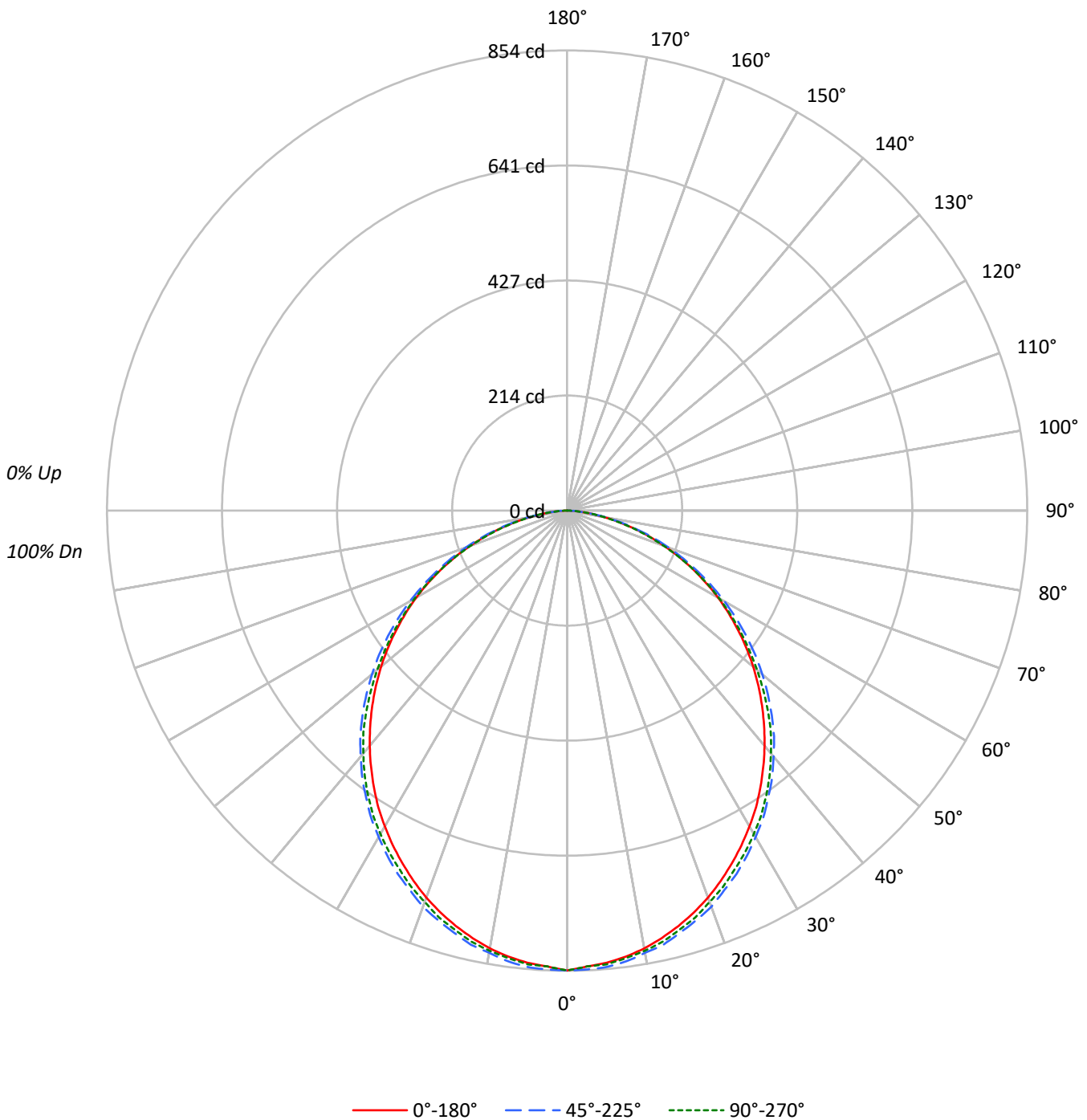
Lumens per Lamp: N/A
Luminaire Lumens: 2244.0 lumens
Efficiency: N/A
Efficacy: 95.9 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.21 / 1.34
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

Input Watts (W): 23.4
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

TEST NUMBER: P489086

CATALOG NUMBER: CLM-24-2-INS-A19156-LD4-2LO-30-120-EDD-90

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°	2297	2297	2297
5°	2276	2297	2283
10°	2255	2278	2267
15°	2223	2259	2243
20°	2189	2241	2214
25°	2146	2208	2183
30°	2103	2174	2154
35°	2055	2137	2117
40°	2002	2094	2067
45°	1946	2044	2005
50°	1887	1979	1927
55°	1818	1904	1845
60°	1741	1814	1757
65°	1641	1704	1642
70°	1510	1570	1493
75°	1330	1390	1309
80°	1080	1127	1068
85°	753	803	781



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	80.4	3.6
10°-20°	227.8	10.2
20°-30°	339.7	15.1
30°-40°	402.6	17.9
40°-50°	407.4	18.2
50°-60°	355.8	15.9
60°-70°	260.0	11.6
70°-80°	138.3	6.2
80°-90°	32.0	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°	647.9	28.9
0°-40°	1050.5	46.8
0°-60°	1813.7	80.8
0°-90°	2244.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2244.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	854	854	854	854	854	
5°	842	844	850	852	845	80
15°	798	804	811	816	805	225
25°	723	732	744	746	735	333
35°	626	635	650	655	644	391
45°	511	520	537	538	527	394
55°	388	396	406	400	393	347
65°	258	263	268	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°	853.5	853.5	853.5	853.5	853.5
2.5°	846.9	849.6	852.5	853.7	846.8
5°	842.4	844.0	850.3	852.3	845.1
7.5°	835.1	837.5	843.7	844.6	837.6
10°	825.2	829.4	833.5	838.0	829.5
12.5°	812.5	818.2	825.2	826.0	819.6
15°	798.1	803.5	811.0	815.9	805.3
17.5°	782.1	787.3	797.1	798.0	791.6
20°	764.3	770.7	782.4	784.4	773.0
22.5°	744.0	752.6	762.4	764.3	755.9
25°	722.7	731.6	743.7	746.5	735.2
27.5°	700.5	709.0	722.6	724.6	715.1
30°	676.7	684.7	699.6	702.9	693.2
32.5°	652.5	660.5	677.0	679.8	670.3
35°	625.6	635.4	650.4	655.0	644.4
37.5°	598.2	607.7	624.8	628.9	617.5
40°	569.9	579.3	596.1	599.5	588.5
42.5°	540.9	550.3	568.3	568.8	559.7
45°	511.3	520.3	537.0	537.5	526.9
47.5°	481.2	490.4	505.3	503.6	493.6
50°	450.8	459.5	472.6	469.2	460.2
52.5°	419.3	427.7	440.1	434.6	426.1
55°	387.6	395.5	405.8	399.9	393.3
57.5°	355.7	363.6	371.5	365.6	359.9
60°	323.5	330.5	337.0	330.9	326.5
62.5°	290.8	296.8	302.4	296.6	292.5
65°	257.7	263.0	267.6	262.3	257.9
67.5°	224.8	229.3	233.5	228.0	223.5
70°	191.9	195.7	199.6	194.0	189.8
72.5°	159.4	162.8	166.3	160.8	157.1
75°	127.9	130.8	133.7	128.8	125.9
77.5°	97.7	100.2	102.2	99.1	96.3
80°	69.7	71.6	72.7	71.5	68.9
82.5°	44.8	46.2	46.8	46.7	45.0
85°	24.4	24.8	26.0	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)