

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: P489640

Luminaire Tested: **CLM-24-4-INS-A19156-LD4-2STD-35-120-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: P489640
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-24-4-INS-A19156-LD4-2STD-35-120-EDD-90
Description: 2X4 CLM LED LUMINAIRE WITH A19156 LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

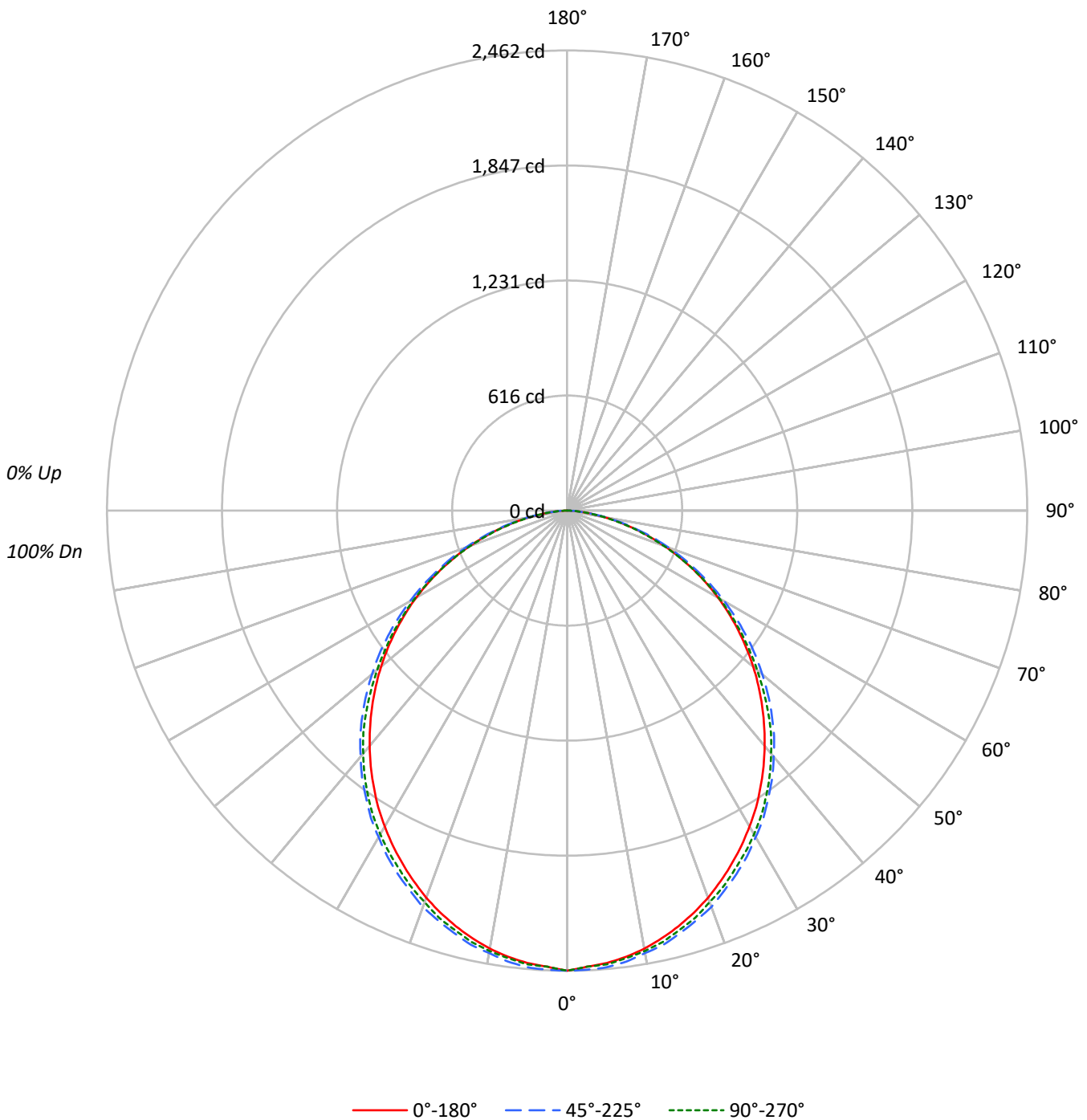
Lumens per Lamp: N/A
Luminaire Lumens: 6472.3 lumens
Efficiency: N/A
Efficacy: 97.2 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.21 / 1.34
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 66.6
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°	3312	3312	3312
5°	3282	3313	3292
10°	3252	3285	3269
15°	3207	3258	3236
20°	3156	3231	3192
25°	3095	3185	3148
30°	3032	3135	3106
35°	2964	3081	3053
40°	2887	3020	2982
45°	2806	2947	2892
50°	2722	2853	2779
55°	2623	2746	2661
60°	2511	2615	2534
65°	2366	2457	2368
70°	2177	2265	2153
75°	1917	2004	1888
80°	1558	1626	1540
85°	1085	1156	1129



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	231.9	3.6
10°-20°	657.0	10.2
20°-30°	979.9	15.1
30°-40°	1161.2	17.9
40°-50°	1175.0	18.2
50°-60°	1026.2	15.9
60°-70°	749.9	11.6
70°-80°	399.0	6.2
80°-90°	92.2	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°	1868.8	28.9
0°-40°	3030.0	46.8
0°-60°	5231.2	80.8
0°-90°	6472.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	6472.3	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2462	2462	2462	2462	2462	
5°	2430	2434	2453	2458	2438	230
15°	2302	2317	2339	2353	2323	649
25°	2084	2110	2145	2153	2120	960
35°	1804	1833	1876	1889	1859	1128
45°	1475	1501	1549	1550	1520	1138
55°	1118	1141	1170	1154	1134	999
65°	743	758	772	756	744	736
75°	369	377	386	371	363	392
85°	70	72	75	76	73	89
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2461.8	2461.8	2461.8	2461.8	2461.8
2.5°	2442.6	2450.5	2458.8	2462.3	2442.3
5°	2429.8	2434.4	2452.6	2458.2	2437.5
7.5°	2408.7	2415.7	2433.4	2435.9	2415.9
10°	2380.0	2392.3	2404.1	2416.9	2392.6
12.5°	2343.3	2360.0	2380.0	2382.3	2363.9
15°	2302.0	2317.4	2339.2	2353.3	2322.8
17.5°	2255.9	2270.7	2299.0	2301.5	2283.1
20°	2204.3	2222.8	2256.6	2262.5	2229.4
22.5°	2145.8	2170.7	2198.9	2204.6	2180.2
25°	2084.5	2110.2	2145.1	2153.0	2120.4
27.5°	2020.4	2045.0	2084.3	2089.9	2062.5
30°	1951.7	1974.7	2017.8	2027.3	1999.4
32.5°	1881.9	1905.0	1952.7	1960.6	1933.5
35°	1804.4	1832.7	1876.0	1889.1	1858.6
37.5°	1725.4	1752.9	1802.1	1813.9	1781.1
40°	1643.6	1670.8	1719.3	1729.0	1697.5
42.5°	1560.0	1587.2	1639.0	1640.5	1614.4
45°	1474.6	1500.7	1549.0	1550.3	1519.7
47.5°	1387.9	1414.3	1457.4	1452.5	1423.8
50°	1300.2	1325.3	1363.0	1353.3	1327.4
52.5°	1209.4	1233.7	1269.4	1253.5	1229.1
55°	1118.1	1140.6	1170.4	1153.5	1134.5
57.5°	1026.0	1048.8	1071.6	1054.4	1038.0
60°	933.1	953.1	971.9	954.4	941.8
62.5°	838.7	855.9	872.1	855.4	843.6
65°	743.3	758.5	771.8	756.4	743.8
67.5°	648.4	661.2	673.6	657.7	644.6
70°	553.5	564.5	575.8	559.4	547.4
72.5°	459.9	469.6	479.6	463.7	453.2
75°	368.8	377.3	385.5	371.4	363.2
77.5°	281.9	289.1	294.7	285.7	277.8
80°	201.1	206.5	209.8	206.2	198.8
82.5°	129.3	133.1	134.9	134.7	129.8
85°	70.3	71.6	74.9	75.7	73.1
87.5°	27.2	29.0	29.8	32.1	29.5
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)