

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: P489696

Luminaire Tested: **CLM-24-4-INS-A19156-LD4-4LO-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: P489696
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-LD4-4LO-27-120-EDD-90
Description: 2X4 CLM LED LUMINAIRE WITH A19156 LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

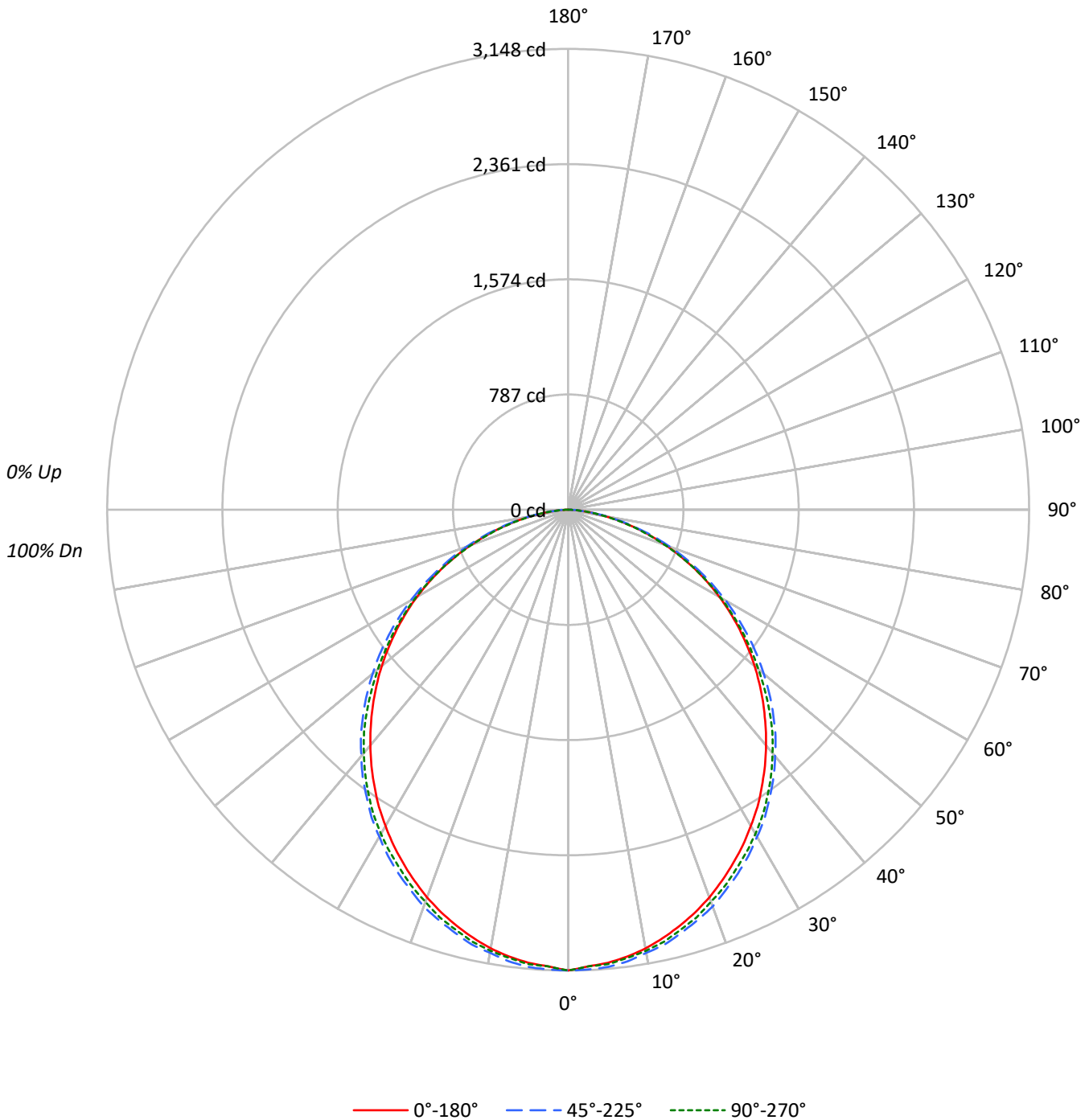
Lumens per Lamp: N/A
Luminaire Lumens: 8275.2 lumens
Efficiency: N/A
Efficacy: 88.4 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.21 / 1.34
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 93.6
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°	4235	4235	4235
5°	4196	4235	4209
10°	4157	4200	4179
15°	4100	4166	4137
20°	4035	4131	4081
25°	3957	4072	4025
30°	3877	4008	3972
35°	3790	3940	3903
40°	3691	3861	3812
45°	3587	3768	3697
50°	3480	3648	3552
55°	3353	3510	3403
60°	3211	3344	3240
65°	3026	3142	3028
70°	2784	2896	2753
75°	2452	2562	2414
80°	1992	2079	1970
85°	1388	1479	1443



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	296.4	3.6
10°-20°	840.0	10.2
20°-30°	1252.9	15.1
30°-40°	1484.7	17.9
40°-50°	1502.3	18.2
50°-60°	1312.0	15.9
60°-70°	958.8	11.6
70°-80°	510.2	6.2
80°-90°	117.9	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°	2389.4	28.9
0°-40°	3874.1	46.8
0°-60°	6688.4	80.8
0°-90°	8275.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	8275.2	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	3148	3148	3148	3148	3148	
5°	3107	3112	3136	3143	3116	295
15°	2943	2963	2991	3009	2970	830
25°	2665	2698	2743	2753	2711	1228
35°	2307	2343	2399	2415	2376	1443
45°	1885	1919	1980	1982	1943	1454
55°	1430	1458	1496	1475	1450	1278
65°	950	970	987	967	951	940
75°	472	482	493	475	464	501
85°	90	92	96	97	94	114
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	3147.6	3147.6	3147.6	3147.6	3147.6
2.5°	3123.0	3133.2	3143.7	3148.2	3122.7
5°	3106.6	3112.5	3135.8	3143.0	3116.4
7.5°	3079.7	3088.6	3111.2	3114.5	3088.9
10°	3043.0	3058.7	3073.8	3090.2	3059.0
12.5°	2996.1	3017.4	3043.0	3045.9	3022.3
15°	2943.3	2963.0	2990.8	3008.9	2969.8
17.5°	2884.3	2903.3	2939.3	2942.6	2919.0
20°	2818.3	2841.9	2885.2	2892.8	2850.5
22.5°	2743.6	2775.4	2811.5	2818.7	2787.5
25°	2665.2	2698.0	2742.6	2752.7	2711.1
27.5°	2583.2	2614.7	2664.9	2672.1	2637.0
30°	2495.3	2524.8	2579.9	2592.1	2556.3
32.5°	2406.1	2435.6	2496.6	2506.8	2472.0
35°	2307.1	2343.1	2398.6	2415.3	2376.3
37.5°	2206.1	2241.2	2304.1	2319.2	2277.2
40°	2101.5	2136.2	2198.2	2210.7	2170.3
42.5°	1994.5	2029.3	2095.6	2097.5	2064.1
45°	1885.3	1918.8	1980.4	1982.1	1943.1
47.5°	1774.5	1808.3	1863.4	1857.1	1820.4
50°	1662.3	1694.5	1742.7	1730.2	1697.1
52.5°	1546.2	1577.4	1623.0	1602.7	1571.5
55°	1429.5	1458.4	1496.4	1474.8	1450.5
57.5°	1311.8	1341.0	1370.1	1348.2	1327.2
60°	1193.1	1218.6	1242.6	1220.3	1204.2
62.5°	1072.4	1094.3	1115.0	1093.7	1078.6
65°	950.4	969.7	986.8	967.1	951.0
67.5°	829.0	845.4	861.2	840.8	824.1
70°	707.7	721.8	736.2	715.2	699.8
72.5°	588.0	600.5	613.3	592.9	579.5
75°	471.6	482.4	492.9	474.9	464.4
77.5°	360.4	369.6	376.8	365.3	355.2
80°	257.1	264.0	268.3	263.7	254.2
82.5°	165.3	170.2	172.5	172.2	165.9
85°	89.9	91.5	95.8	96.7	93.5
87.5°	34.8	37.1	38.0	41.0	37.7
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)