

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: P489676

Luminaire Tested: **CLM-24-4-INS-A19156-LD4-3STD-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: P489676
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-LD4-3STD-35-120-EDD-90
Description: 2X4 CLM LED LUMINAIRE WITH A19156 LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

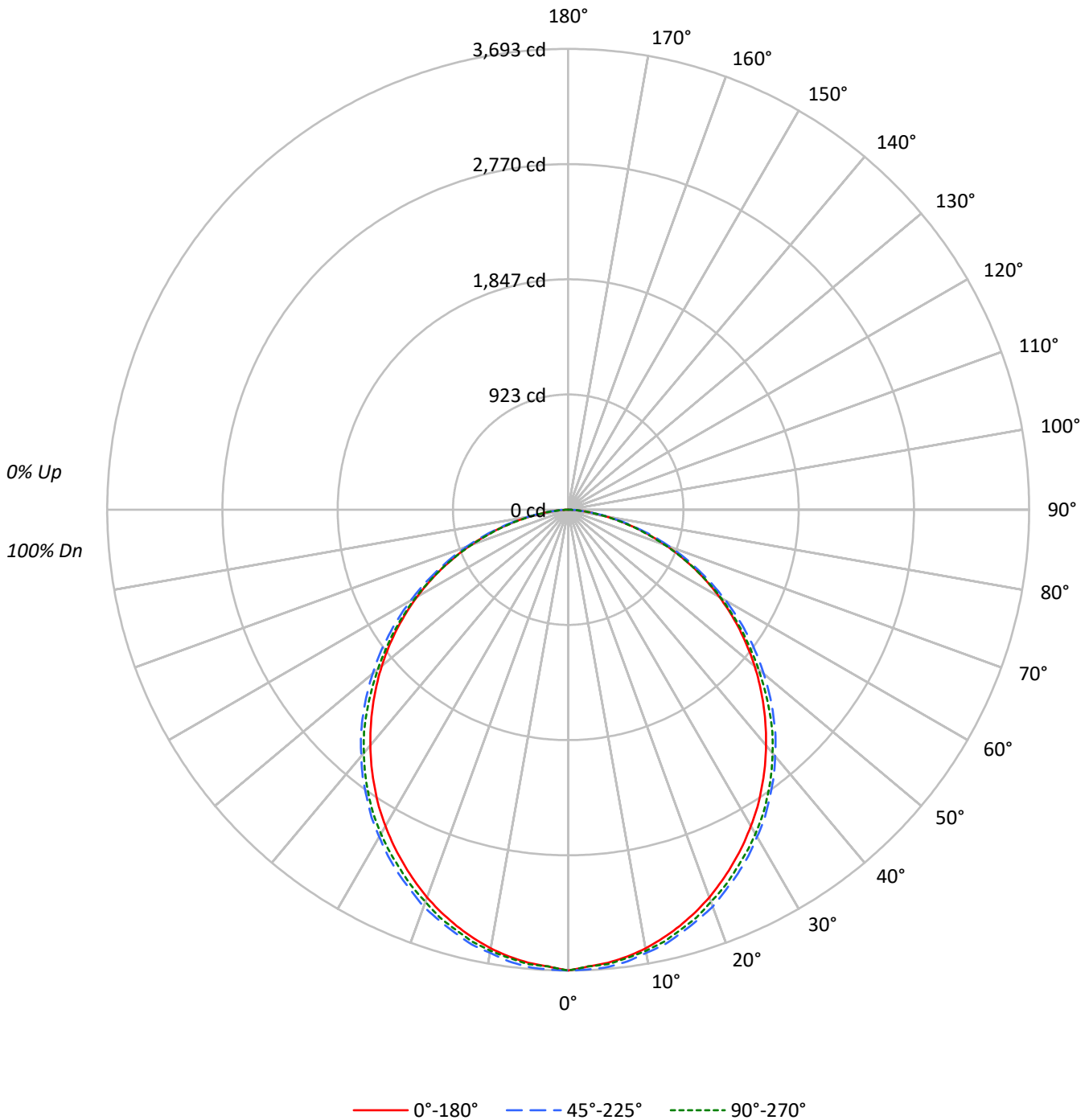
Lumens per Lamp: N/A
Luminaire Lumens: 9708.5 lumens
Efficiency: N/A
Efficacy: 97.2 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.21 / 1.34
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 99.9
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°	4969	4969	4969
5°	4923	4969	4938
10°	4877	4927	4903
15°	4810	4888	4853
20°	4734	4847	4788
25°	4642	4777	4722
30°	4548	4703	4660
35°	4446	4622	4579
40°	4330	4530	4472
45°	4209	4421	4338
50°	4082	4280	4168
55°	3934	4118	3992
60°	3767	3923	3802
65°	3550	3686	3552
70°	3266	3398	3230
75°	2876	3006	2832
80°	2337	2438	2311
85°	1627	1734	1694



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	347.8	3.6
10°-20°	985.5	10.2
20°-30°	1469.9	15.1
30°-40°	1741.8	17.9
40°-50°	1762.5	18.2
50°-60°	1539.3	15.9
60°-70°	1124.8	11.6
70°-80°	598.5	6.2
80°-90°	138.3	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°	2803.2	28.9
0°-40°	4545.1	46.8
0°-60°	7846.8	80.8
0°-90°	9708.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	9708.5	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	3693	3693	3693	3693	3693	
5°	3645	3652	3679	3687	3656	346
15°	3453	3476	3509	3530	3484	973
25°	3127	3165	3218	3230	3181	1441
35°	2707	2749	2814	2834	2788	1693
45°	2212	2251	2324	2325	2280	1706
55°	1677	1711	1756	1730	1702	1499
65°	1115	1138	1158	1135	1116	1103
75°	553	566	578	557	545	588
85°	105	107	112	114	110	133
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	3692.8	3692.8	3692.8	3692.8	3692.8
2.5°	3663.9	3675.8	3688.2	3693.5	3663.5
5°	3644.7	3651.6	3678.9	3687.4	3656.2
7.5°	3613.1	3623.5	3650.1	3653.9	3623.9
10°	3570.0	3588.5	3606.2	3625.4	3588.9
12.5°	3515.0	3540.0	3570.0	3573.5	3545.8
15°	3453.1	3476.2	3508.9	3530.0	3484.2
17.5°	3383.8	3406.1	3448.5	3452.3	3424.6
20°	3306.5	3334.2	3385.0	3393.8	3344.2
22.5°	3218.8	3256.1	3298.4	3306.9	3270.3
25°	3126.8	3165.3	3217.6	3229.5	3180.7
27.5°	3030.6	3067.6	3126.4	3134.9	3093.7
30°	2927.5	2962.1	3026.8	3041.0	2999.1
32.5°	2822.9	2857.5	2929.1	2941.0	2900.2
35°	2706.7	2749.0	2814.0	2833.6	2787.9
37.5°	2588.2	2629.3	2703.2	2720.9	2671.7
40°	2465.4	2506.2	2578.9	2593.6	2546.2
42.5°	2340.0	2380.8	2458.5	2460.8	2421.6
45°	2211.9	2251.1	2323.5	2325.4	2279.6
47.5°	2081.8	2121.5	2186.1	2178.8	2135.7
50°	1950.3	1988.0	2044.5	2029.9	1991.0
52.5°	1814.1	1850.6	1904.1	1880.2	1843.7
55°	1677.1	1711.0	1755.6	1730.2	1701.7
57.5°	1539.0	1573.2	1607.5	1581.7	1557.1
60°	1399.7	1429.7	1457.8	1431.6	1412.8
62.5°	1258.1	1283.9	1308.1	1283.1	1265.4
65°	1115.0	1137.7	1157.7	1134.6	1115.8
67.5°	972.6	991.9	1010.3	986.5	966.9
70°	830.3	846.8	863.7	839.1	821.0
72.5°	689.8	704.5	719.5	695.6	679.8
75°	553.3	566.0	578.3	557.1	544.8
77.5°	422.8	433.6	442.1	428.6	416.7
80°	301.6	309.7	314.7	309.3	298.2
82.5°	193.9	199.7	202.4	202.0	194.7
85°	105.4	107.3	112.3	113.5	109.7
87.5°	40.8	43.5	44.6	48.1	44.2
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)