

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: P489698

Luminaire Tested: **CLM-24-4-INS-A19156-LD4-4LO-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: P489698
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-30-120-EDD-90
Description: 2X4 CLM LED LUMINAIRE WITH A19156 LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

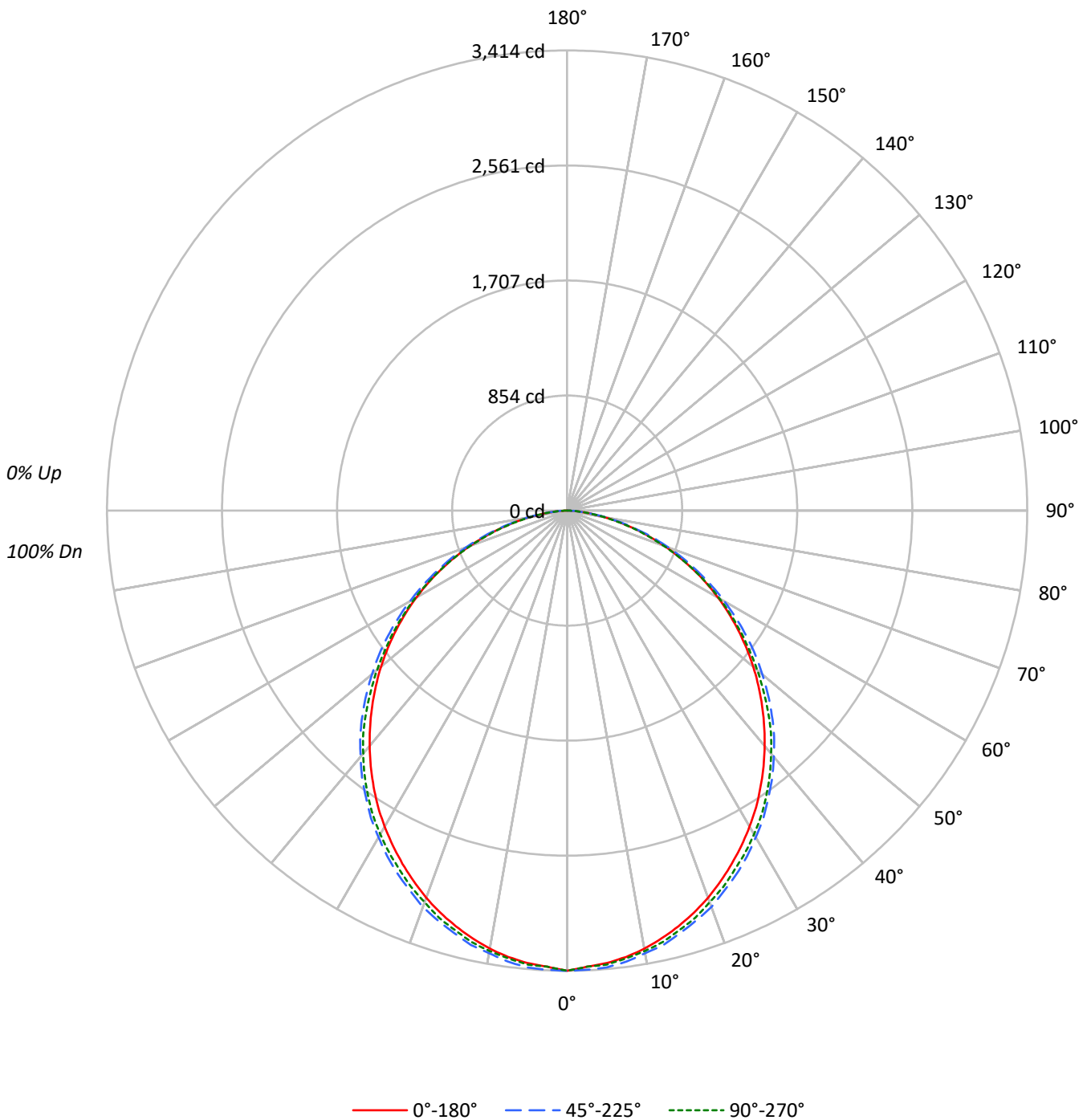
Lumens per Lamp: N/A
Luminaire Lumens: 8976.3 lumens
Efficiency: N/A
Efficacy: 95.9 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.21 / 1.34
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

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°	4594	4594	4594
5°	4551	4594	4566
10°	4510	4555	4533
15°	4447	4519	4487
20°	4377	4481	4427
25°	4292	4416	4366
30°	4205	4348	4308
35°	4110	4274	4234
40°	4004	4188	4135
45°	3891	4088	4011
50°	3774	3957	3853
55°	3637	3808	3691
60°	3482	3627	3515
65°	3282	3408	3284
70°	3020	3142	2986
75°	2659	2780	2619
80°	2161	2255	2136
85°	1505	1604	1565



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	321.6	3.6
10°-20°	911.2	10.2
20°-30°	1359.0	15.1
30°-40°	1610.5	17.9
40°-50°	1629.6	18.2
50°-60°	1423.2	15.9
60°-70°	1040.0	11.6
70°-80°	553.4	6.2
80°-90°	127.9	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°	2591.8	28.9
0°-40°	4202.3	46.8
0°-60°	7255.0	80.8
0°-90°	8976.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	8976.3	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	3414	3414	3414	3414	3414	
5°	3370	3376	3402	3409	3380	320
15°	3193	3214	3244	3264	3222	900
25°	2891	2927	2975	2986	2941	1332
35°	2502	2542	2602	2620	2578	1565
45°	2045	2081	2148	2150	2108	1578
55°	1551	1582	1623	1600	1573	1386
65°	1031	1052	1070	1049	1032	1020
75°	512	523	535	515	504	544
85°	98	99	104	105	101	123
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	3414.3	3414.3	3414.3	3414.3	3414.3
2.5°	3387.6	3398.6	3410.0	3415.0	3387.2
5°	3369.8	3376.2	3401.5	3409.3	3380.5
7.5°	3340.6	3350.2	3374.8	3378.3	3350.6
10°	3300.8	3317.9	3334.2	3352.0	3318.2
12.5°	3249.9	3273.0	3300.8	3304.0	3278.4
15°	3192.6	3214.0	3244.2	3263.8	3221.5
17.5°	3128.6	3149.2	3188.4	3191.9	3166.3
20°	3057.1	3082.7	3129.7	3137.9	3092.0
22.5°	2976.0	3010.5	3049.6	3057.5	3023.7
25°	2891.0	2926.6	2974.9	2986.0	2940.8
27.5°	2802.1	2836.2	2890.6	2898.5	2860.4
30°	2706.7	2738.7	2798.5	2811.7	2772.9
32.5°	2610.0	2642.0	2708.1	2719.2	2681.5
35°	2502.5	2541.7	2601.8	2619.9	2577.6
37.5°	2393.0	2431.0	2499.3	2515.7	2470.2
40°	2279.5	2317.2	2384.4	2398.0	2354.2
42.5°	2163.5	2201.2	2273.1	2275.2	2238.9
45°	2045.1	2081.4	2148.2	2150.0	2107.7
47.5°	1924.8	1961.5	2021.2	2014.5	1974.6
50°	1803.2	1838.0	1890.3	1876.8	1840.9
52.5°	1677.3	1711.0	1760.5	1738.4	1704.6
55°	1550.6	1581.9	1623.2	1599.7	1573.4
57.5°	1422.9	1454.6	1486.2	1462.4	1439.6
60°	1294.1	1321.9	1347.8	1323.7	1306.2
62.5°	1163.2	1187.1	1209.5	1186.3	1170.0
65°	1030.9	1051.9	1070.4	1049.0	1031.6
67.5°	899.3	917.1	934.1	912.1	893.9
70°	767.7	783.0	798.6	775.8	759.1
72.5°	637.8	651.3	665.2	643.2	628.6
75°	511.5	523.3	534.7	515.1	503.7
77.5°	390.9	400.9	408.7	396.3	385.3
80°	278.9	286.4	291.0	286.0	275.7
82.5°	179.3	184.6	187.1	186.8	180.0
85°	97.5	99.2	103.9	104.9	101.4
87.5°	37.7	40.2	41.3	44.5	40.9
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)