

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: P489674

Luminaire Tested: **CLM-24-4-INS-A19156-LD4-3STD-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: P489674
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-30-120-EDD-90
Description: 2X4 CLM LED LUMINAIRE WITH A19156 LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

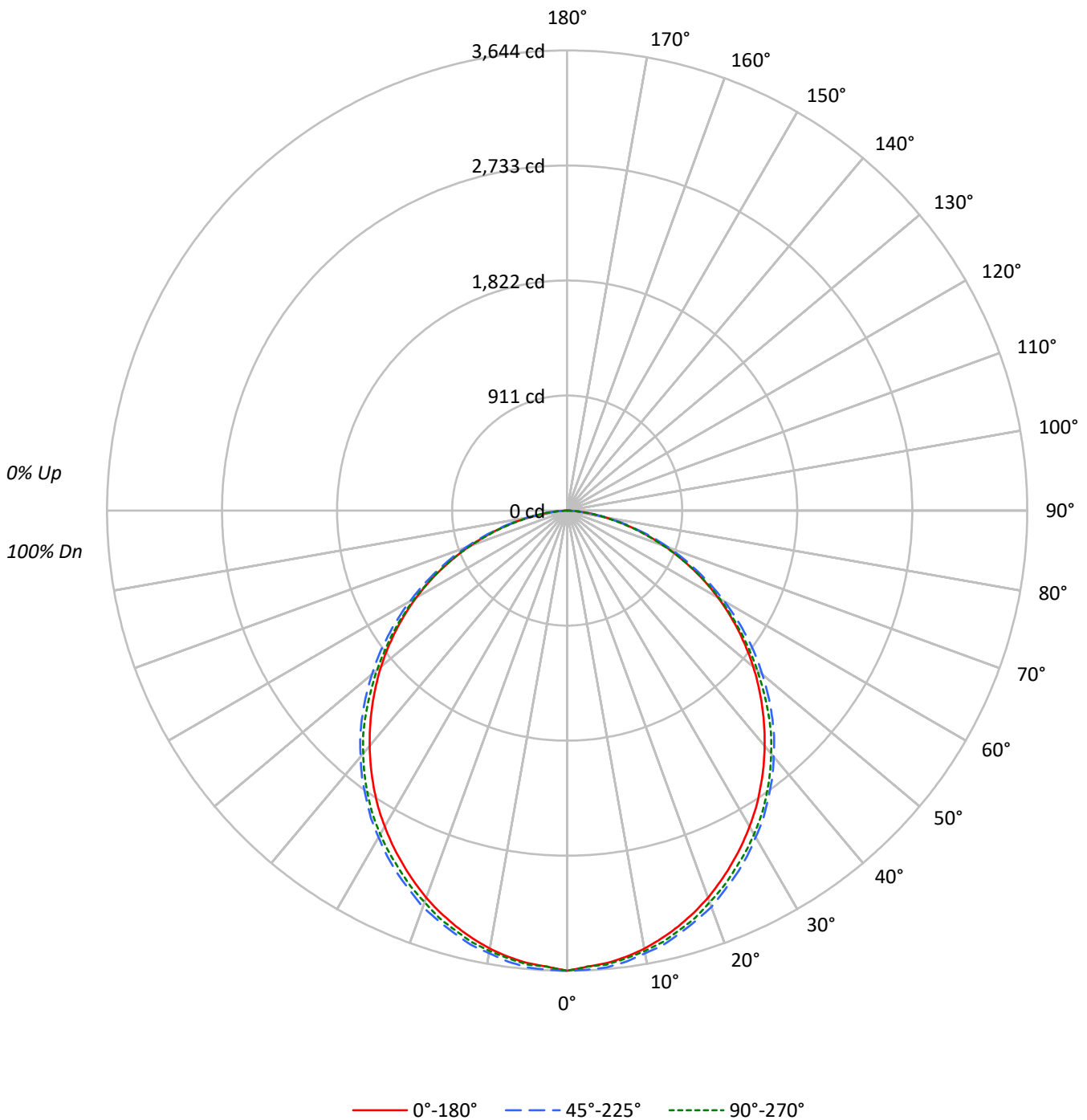
Lumens per Lamp: N/A
Luminaire Lumens: 9580.5 lumens
Efficiency: N/A
Efficacy: 95.9 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.21 / 1.34
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 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	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					100			
1	109	105	100	97	106	102	98	95	98	95	92	94	92	89	91	88	87	85					85			
2	99	91	85	79	97	90	83	78	86	81	76	83	78	75	80	76	73	71					71			
3	91	80	72	66	88	79	71	65	76	70	64	73	68	63	71	66	62	60					60			
4	83	71	63	56	81	70	62	56	68	61	55	65	59	54	63	58	54	51					51			
5	77	64	55	48	75	63	54	48	61	53	48	59	52	47	57	51	47	45					45			
6	71	58	49	42	69	57	48	42	55	47	42	53	47	41	52	46	41	39					39			
7	66	52	44	38	64	51	43	37	50	43	37	49	42	37	47	41	37	35					35			
8	61	48	39	34	60	47	39	33	46	38	33	45	38	33	43	37	33	31					31			
9	57	44	36	30	56	43	35	30	42	35	30	41	35	30	40	34	30	28					28			
10	54	41	33	27	52	40	32	27	39	32	27	38	32	27	37	31	27	25					25			

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	4903	4903	4903
5°	4858	4903	4873
10°	4813	4862	4839
15°	4746	4823	4789
20°	4672	4783	4725
25°	4581	4714	4660
30°	4488	4641	4598
35°	4387	4561	4519
40°	4273	4470	4413
45°	4153	4363	4281
50°	4029	4223	4113
55°	3882	4064	3939
60°	3717	3871	3752
65°	3503	3637	3505
70°	3223	3353	3187
75°	2838	2966	2795
80°	2307	2407	2280
85°	1606	1712	1670



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	343.2	3.6
10°-20°	972.6	10.2
20°-30°	1450.5	15.1
30°-40°	1718.9	17.9
40°-50°	1739.3	18.2
50°-60°	1519.0	15.9
60°-70°	1110.0	11.6
70°-80°	590.6	6.2
80°-90°	136.5	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°	2766.3	28.9
0°-40°	4485.2	46.8
0°-60°	7743.4	80.8
0°-90°	9580.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	9580.5	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	3644	3644	3644	3644	3644	
5°	3597	3604	3630	3639	3608	341
15°	3408	3430	3463	3484	3438	961
25°	3086	3124	3175	3187	3139	1422
35°	2671	2713	2777	2796	2751	1670
45°	2183	2222	2293	2295	2250	1684
55°	1655	1688	1732	1707	1679	1479
65°	1100	1123	1142	1120	1101	1089
75°	546	558	571	550	538	580
85°	104	106	111	112	108	132
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	3644.1	3644.1	3644.1	3644.1	3644.1
2.5°	3615.6	3627.4	3639.5	3644.8	3615.2
5°	3596.6	3603.5	3630.4	3638.8	3608.0
7.5°	3565.5	3575.7	3601.9	3605.7	3576.1
10°	3523.0	3541.2	3558.7	3577.6	3541.6
12.5°	3468.7	3493.4	3523.0	3526.4	3499.0
15°	3407.5	3430.3	3462.6	3483.5	3438.3
17.5°	3339.2	3361.2	3403.0	3406.8	3379.5
20°	3262.9	3290.2	3340.3	3349.1	3300.1
22.5°	3176.3	3213.2	3254.9	3263.3	3227.2
25°	3085.6	3123.6	3175.2	3187.0	3138.7
27.5°	2990.7	3027.1	3085.2	3093.6	3052.9
30°	2888.9	2923.1	2986.9	3000.9	2959.5
32.5°	2785.6	2819.8	2890.4	2902.2	2862.0
35°	2671.0	2712.7	2776.9	2796.3	2751.1
37.5°	2554.0	2594.7	2667.6	2685.0	2636.4
40°	2432.9	2473.2	2544.9	2559.4	2512.7
42.5°	2309.2	2349.4	2426.1	2428.4	2389.6
45°	2182.7	2221.5	2292.8	2294.7	2249.6
47.5°	2054.4	2093.5	2157.3	2150.1	2107.6
50°	1924.6	1961.8	2017.6	2003.1	1964.8
52.5°	1790.1	1826.2	1879.0	1855.5	1819.4
55°	1655.0	1688.4	1732.4	1707.4	1679.3
57.5°	1518.7	1552.5	1586.3	1560.8	1536.5
60°	1381.2	1410.9	1438.6	1412.8	1394.2
62.5°	1241.5	1267.0	1290.9	1266.2	1248.7
65°	1100.3	1122.7	1142.4	1119.6	1101.0
67.5°	959.8	978.8	997.0	973.5	954.1
70°	819.3	835.7	852.4	828.1	810.2
72.5°	680.7	695.2	710.0	686.4	670.9
75°	546.0	558.5	570.6	549.8	537.6
77.5°	417.3	427.9	436.2	423.0	411.2
80°	297.7	305.6	310.6	305.3	294.2
82.5°	191.4	197.0	199.7	199.3	192.1
85°	104.0	105.9	110.9	112.0	108.2
87.5°	40.2	42.9	44.0	47.5	43.7
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)