

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: P488672

Luminaire Tested: **CLM-12-4-INS-A19156-LD4-1STD-50-120-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: P488672
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-12-4-INS-A19156-LD4-1STD-50-120-EDD-90
Description: 1X4 CLM LED LUMINAIRE WITH A19156 LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

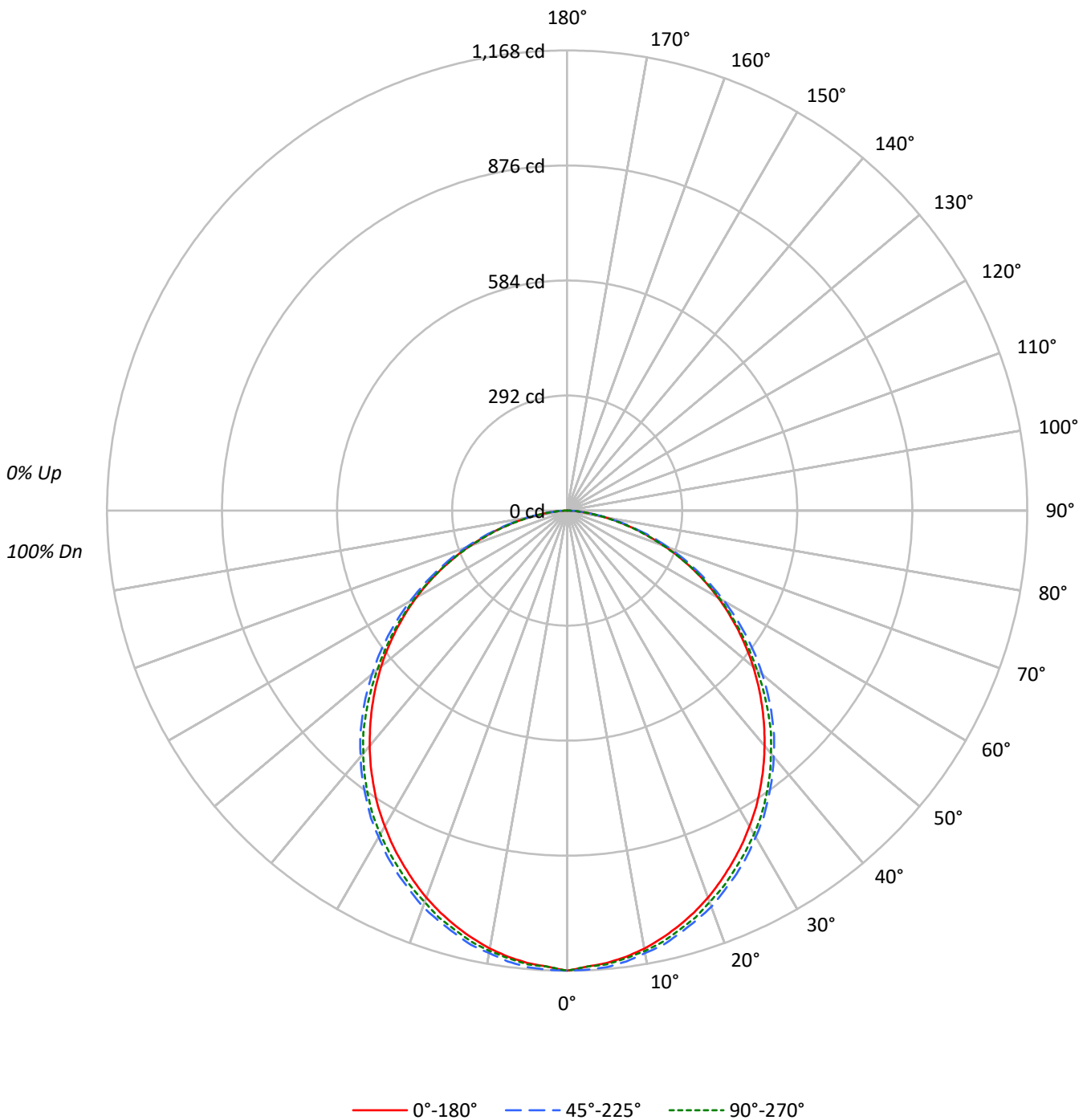
Lumens per Lamp: N/A
Luminaire Lumens: 3069.9 lumens
Efficiency: N/A
Efficacy: 92.2 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.21 / 1.34
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 33.3
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°	3142	3142	3142
5°	3113	3142	3123
10°	3085	3116	3101
15°	3042	3091	3069
20°	2994	3065	3028
25°	2936	3021	2986
30°	2876	2974	2947
35°	2812	2923	2896
40°	2739	2865	2828
45°	2662	2796	2743
50°	2582	2707	2636
55°	2488	2604	2525
60°	2382	2481	2404
65°	2245	2331	2246
70°	2065	2149	2043
75°	1818	1902	1791
80°	1478	1542	1461
85°	1028	1096	1071



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	110.0	3.6
10°-20°	311.6	10.2
20°-30°	464.8	15.1
30°-40°	550.8	17.9
40°-50°	557.3	18.2
50°-60°	486.7	15.9
60°-70°	355.7	11.6
70°-80°	189.3	6.2
80°-90°	43.7	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°	886.4	28.9
0°-40°	1437.2	46.8
0°-60°	2481.2	80.8
0°-90°	3069.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3069.9	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1168	1168	1168	1168	1168	
5°	1152	1155	1163	1166	1156	109
15°	1092	1099	1110	1116	1102	308
25°	989	1001	1017	1021	1006	456
35°	856	869	890	896	882	535
45°	699	712	735	735	721	540
55°	530	541	555	547	538	474
65°	353	360	366	359	353	349
75°	175	179	183	176	172	186
85°	33	34	36	36	35	42
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1167.7	1167.7	1167.7	1167.7	1167.7
2.5°	1158.6	1162.3	1166.2	1167.9	1158.4
5°	1152.5	1154.7	1163.3	1166.0	1156.1
7.5°	1142.5	1145.8	1154.2	1155.4	1145.9
10°	1128.9	1134.7	1140.3	1146.4	1134.8
12.5°	1111.5	1119.4	1128.9	1130.0	1121.2
15°	1091.9	1099.2	1109.5	1116.2	1101.7
17.5°	1070.0	1077.0	1090.4	1091.6	1082.9
20°	1045.5	1054.3	1070.4	1073.2	1057.5
22.5°	1017.8	1029.6	1043.0	1045.7	1034.1
25°	988.7	1000.9	1017.4	1021.2	1005.8
27.5°	958.3	970.0	988.6	991.3	978.3
30°	925.7	936.7	957.1	961.6	948.3
32.5°	892.6	903.6	926.2	930.0	917.1
35°	855.9	869.3	889.8	896.0	881.5
37.5°	818.4	831.4	854.8	860.4	844.8
40°	779.6	792.5	815.5	820.1	805.1
42.5°	739.9	752.8	777.4	778.1	765.7
45°	699.4	711.8	734.7	735.3	720.8
47.5°	658.3	670.8	691.3	689.0	675.3
50°	616.7	628.6	646.5	641.9	629.6
52.5°	573.6	585.2	602.1	594.5	583.0
55°	530.3	541.0	555.1	547.1	538.1
57.5°	486.6	497.5	508.3	500.1	492.4
60°	442.6	452.1	461.0	452.7	446.7
62.5°	397.8	406.0	413.6	405.7	400.1
65°	352.6	359.7	366.1	358.8	352.8
67.5°	307.6	313.6	319.5	311.9	305.7
70°	262.5	267.8	273.1	265.3	259.6
72.5°	218.1	222.8	227.5	220.0	215.0
75°	174.9	179.0	182.9	176.2	172.3
77.5°	133.7	137.1	139.8	135.5	131.8
80°	95.4	97.9	99.5	97.8	94.3
82.5°	61.3	63.1	64.0	63.9	61.6
85°	33.3	33.9	35.5	35.9	34.7
87.5°	12.9	13.7	14.1	15.2	14.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)