

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: P489210

Luminaire Tested: **CLM-24-2-INS-A19156-LD4-5STD-40-120-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: P489210  
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-24-2-INS-A19156-LD4-5STD-40-120-EDD-90  
Description: 2X2 CLM LED LUMINAIRE WITH A19156 LENS  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.    Condition    Description

**Summary**

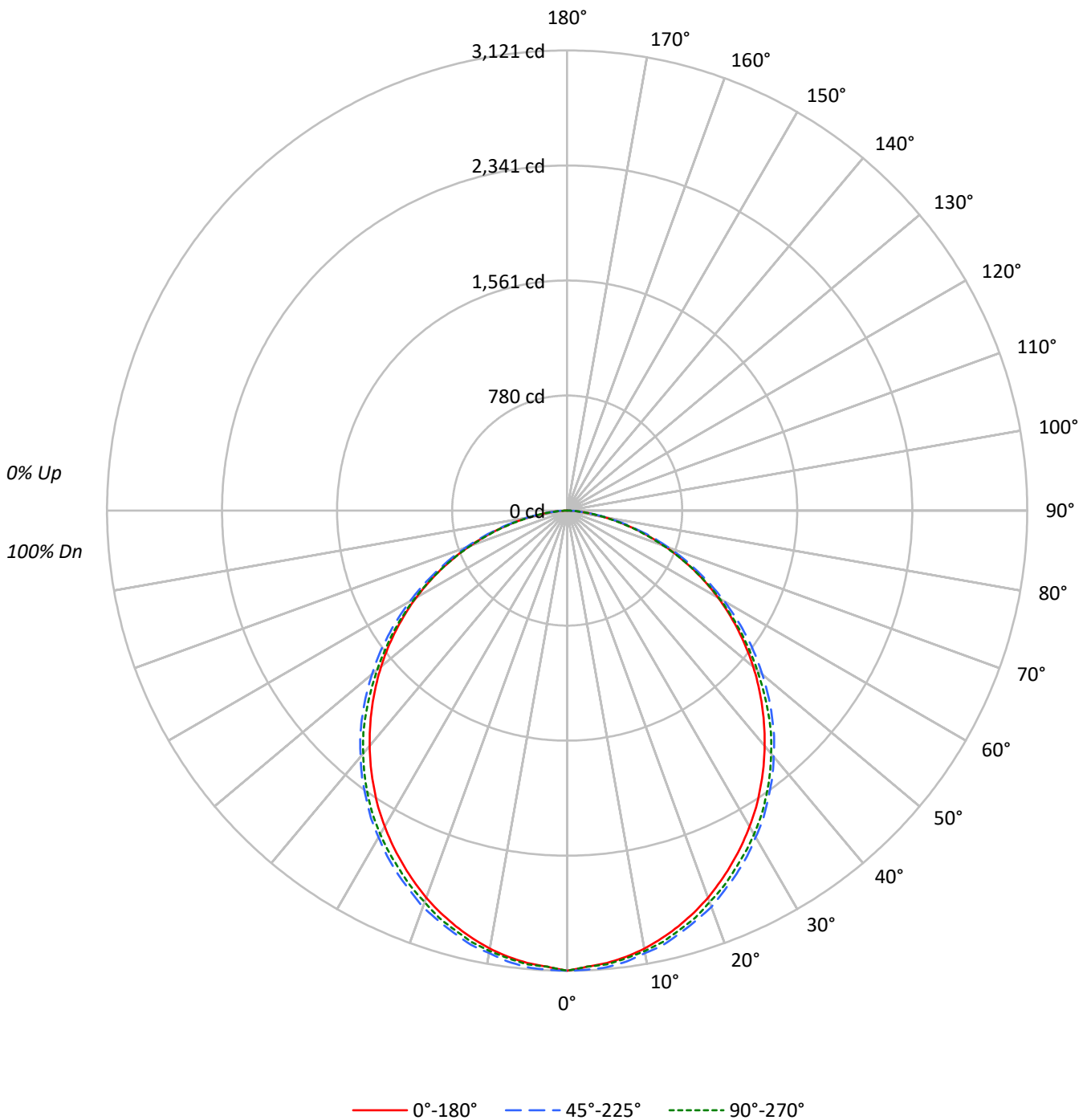
Lumens per Lamp: N/A  
Luminaire Lumens: 8204.9 lumens  
Efficiency: N/A  
Efficacy: 98.6 lumens/watt  
Spacing Criteria (0/90/45): 1.19 / 1.21 / 1.34  
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')  
CIE Type: Direct

Input Watts (W): 83.2  
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°	8398	8398	8398
5°	8320	8398	8347
10°	8244	8328	8288
15°	8130	8261	8203
20°	8002	8192	8094
25°	7846	8074	7981
30°	7688	7948	7876
35°	7515	7813	7740
40°	7319	7656	7559
45°	7114	7473	7332
50°	6900	7234	7044
55°	6650	6961	6747
60°	6366	6631	6426
65°	6000	6230	6004
70°	5521	5744	5460
75°	4862	5081	4787
80°	3950	4122	3905
85°	2751	2930	2862



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	293.9	3.6
10°-20°	832.9	10.2
20°-30°	1242.3	15.1
30°-40°	1472.1	17.9
40°-50°	1489.5	18.2
50°-60°	1300.9	15.9
60°-70°	950.6	11.6
70°-80°	505.8	6.2
80°-90°	116.9	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°	2369.1	28.9
0°-40°	3841.2	46.8
0°-60°	6631.6	80.8
0°-90°	8204.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	8204.9	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	3121	3121	3121	3121	3121	
5°	3080	3086	3109	3116	3090	292
15°	2918	2938	2965	2983	2945	823
25°	2642	2675	2719	2729	2688	1217
35°	2288	2323	2378	2395	2356	1431
45°	1869	1902	1964	1965	1927	1442
55°	1417	1446	1484	1462	1438	1267
65°	942	962	978	959	943	932
75°	468	478	489	471	460	497
85°	89	91	95	96	93	113
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	3120.9	3120.9	3120.9	3120.9	3120.9
2.5°	3096.5	3106.5	3117.0	3121.5	3096.1
5°	3080.2	3086.1	3109.1	3116.3	3090.0
7.5°	3053.5	3062.3	3084.8	3088.0	3062.6
10°	3017.1	3032.7	3047.7	3063.9	3033.1
12.5°	2970.6	2991.8	3017.1	3020.1	2996.6
15°	2918.3	2937.8	2965.4	2983.3	2944.6
17.5°	2859.8	2878.6	2914.4	2917.6	2894.2
20°	2794.4	2817.8	2860.7	2868.2	2826.3
22.5°	2720.3	2751.8	2787.6	2794.7	2763.8
25°	2642.5	2675.1	2719.3	2729.4	2688.1
27.5°	2561.3	2592.5	2642.2	2649.4	2614.6
30°	2474.1	2503.4	2558.0	2570.0	2534.6
32.5°	2385.7	2414.9	2475.4	2485.5	2451.0
35°	2287.5	2323.2	2378.2	2394.8	2356.1
37.5°	2187.3	2222.1	2284.5	2299.5	2257.9
40°	2083.6	2118.1	2179.5	2191.9	2151.9
42.5°	1977.6	2012.1	2077.7	2079.7	2046.5
45°	1869.3	1902.5	1963.6	1965.2	1926.6
47.5°	1759.4	1792.9	1847.5	1841.4	1804.9
50°	1648.2	1680.1	1727.9	1715.5	1682.7
52.5°	1533.1	1564.0	1609.2	1589.0	1558.1
55°	1417.4	1446.0	1483.7	1462.2	1438.2
57.5°	1300.6	1329.6	1358.5	1336.7	1315.9
60°	1182.9	1208.3	1232.0	1209.9	1194.0
62.5°	1063.3	1085.0	1105.5	1084.4	1069.4
65°	942.3	961.5	978.4	958.9	943.0
67.5°	822.0	838.3	853.9	833.7	817.1
70°	701.7	715.7	730.0	709.2	693.9
72.5°	583.0	595.4	608.0	587.9	574.6
75°	467.6	478.3	488.7	470.8	460.4
77.5°	357.3	366.5	373.6	362.2	352.1
80°	254.9	261.8	266.0	261.4	252.0
82.5°	163.9	168.8	171.0	170.7	164.5
85°	89.1	90.7	94.9	95.9	92.7
87.5°	34.5	36.7	37.7	40.6	37.4
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)