

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: P489110

Luminaire Tested: **CLM-24-2-INS-A19156-LD4-3HI-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: P489110
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-LD4-3HI-30-120-EDD-90
Description: 2X2 CLM LED LUMINAIRE WITH A19156 LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

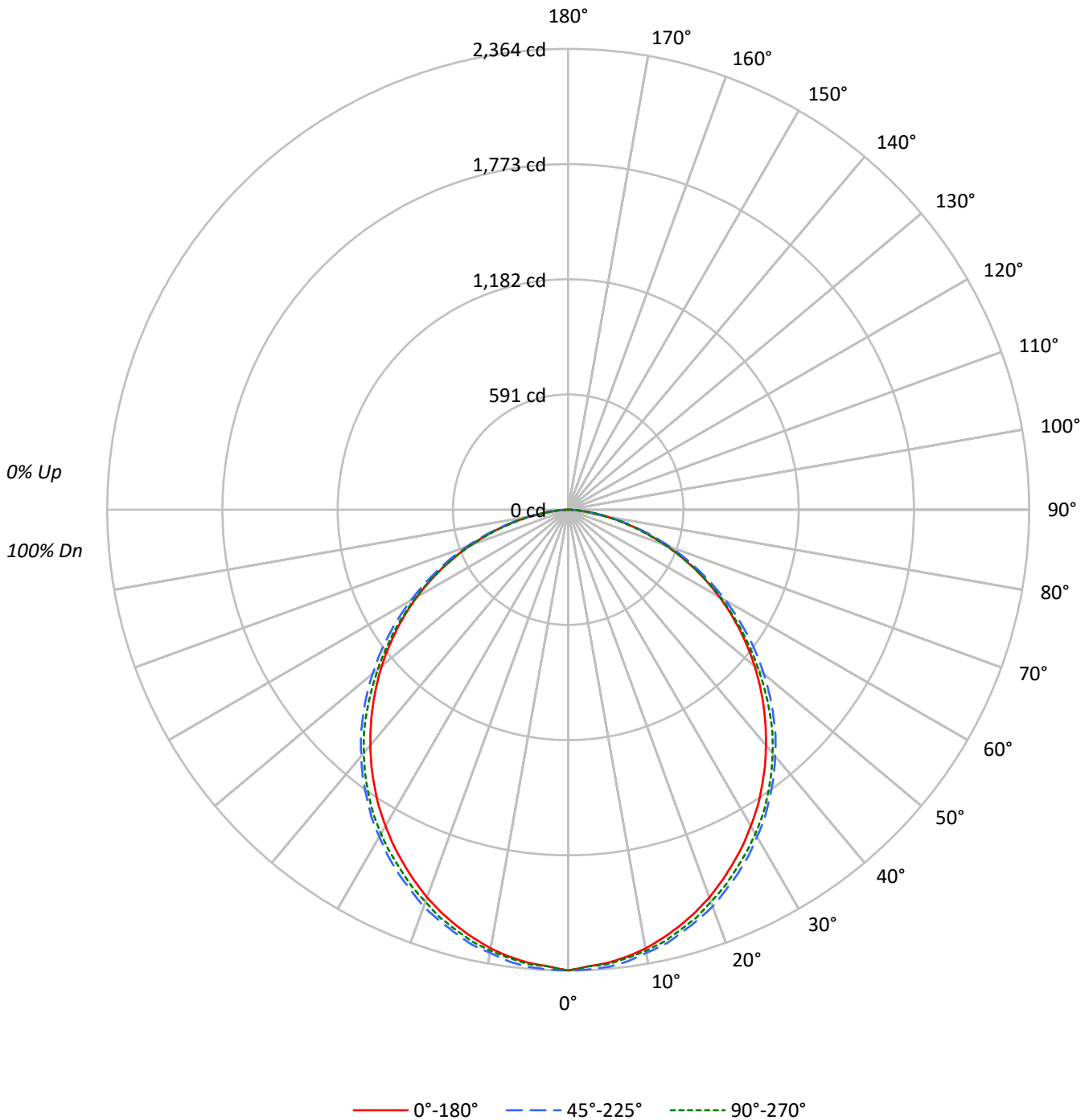
Lumens per Lamp: N/A
Luminaire Lumens: 6214.1 lumens
Efficiency: N/A
Efficacy: 95.9 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.21 / 1.34
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

Input Watts (W): 64.8
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°	6360	6360	6360
5°	6301	6361	6321
10°	6244	6307	6277
15°	6157	6257	6213
20°	6061	6204	6130
25°	5942	6115	6045
30°	5822	6020	5965
35°	5691	5917	5862
40°	5543	5799	5725
45°	5388	5660	5553
50°	5226	5478	5335
55°	5036	5272	5110
60°	4822	5022	4867
65°	4544	4718	4548
70°	4181	4350	4135
75°	3682	3848	3625
80°	2992	3121	2958
85°	2084	2220	2167



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	222.6	3.6
10°-20°	630.8	10.2
20°-30°	940.8	15.1
30°-40°	1114.9	17.9
40°-50°	1128.1	18.2
50°-60°	985.2	15.9
60°-70°	720.0	11.6
70°-80°	383.1	6.2
80°-90°	88.5	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°	1794.3	28.9
0°-40°	2909.2	46.8
0°-60°	5022.5	80.8
0°-90°	6214.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	6214.1	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2364	2364	2364	2364	2364	
5°	2333	2337	2355	2360	2340	221
15°	2210	2225	2246	2260	2230	623
25°	2001	2026	2060	2067	2036	922
35°	1732	1760	1801	1814	1784	1083
45°	1416	1441	1487	1488	1459	1092
55°	1074	1095	1124	1107	1089	960
65°	714	728	741	726	714	706
75°	354	362	370	357	349	376
85°	68	69	72	73	70	85
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2363.6	2363.6	2363.6	2363.6	2363.6
2.5°	2345.2	2352.8	2360.7	2364.1	2344.9
5°	2332.8	2337.3	2354.8	2360.2	2340.2
7.5°	2312.6	2319.3	2336.3	2338.8	2319.5
10°	2285.1	2296.9	2308.2	2320.5	2297.1
12.5°	2249.8	2265.9	2285.1	2287.3	2269.6
15°	2210.2	2225.0	2245.9	2259.5	2230.1
17.5°	2165.9	2180.2	2207.2	2209.7	2192.0
20°	2116.4	2134.1	2166.6	2172.3	2140.5
22.5°	2060.2	2084.1	2111.2	2116.6	2093.2
25°	2001.4	2026.0	2059.5	2067.1	2035.8
27.5°	1939.8	1963.4	2001.1	2006.5	1980.2
30°	1873.8	1896.0	1937.3	1946.5	1919.6
32.5°	1806.8	1829.0	1874.8	1882.4	1856.3
35°	1732.5	1759.5	1801.2	1813.7	1784.4
37.5°	1656.6	1683.0	1730.2	1741.6	1710.0
40°	1578.0	1604.2	1650.7	1660.1	1629.8
42.5°	1497.8	1523.9	1573.6	1575.1	1550.0
45°	1415.8	1440.9	1487.2	1488.4	1459.1
47.5°	1332.5	1357.9	1399.3	1394.6	1367.0
50°	1248.3	1272.4	1308.6	1299.3	1274.4
52.5°	1161.1	1184.5	1218.8	1203.5	1180.1
55°	1073.5	1095.1	1123.7	1107.4	1089.2
57.5°	985.0	1007.0	1028.9	1012.4	996.6
60°	895.9	915.1	933.1	916.3	904.3
62.5°	805.3	821.8	837.3	821.3	810.0
65°	713.7	728.2	741.0	726.2	714.2
67.5°	622.6	634.9	646.7	631.4	618.9
70°	531.4	542.0	552.9	537.1	525.5
72.5°	441.5	450.9	460.5	445.2	435.1
75°	354.1	362.3	370.1	356.6	348.7
77.5°	270.6	277.5	283.0	274.3	266.7
80°	193.1	198.2	201.4	198.0	190.9
82.5°	124.1	127.8	129.5	129.3	124.6
85°	67.5	68.7	71.9	72.6	70.2
87.5°	26.1	27.8	28.6	30.8	28.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)