

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: P489174

Luminaire Tested: **CLM-24-2-INS-A19156-LD4-4STD-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: P489174
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-LD4-4STD-40-120-EDD-90
Description: 2X2 CLM LED LUMINAIRE WITH A19156 LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

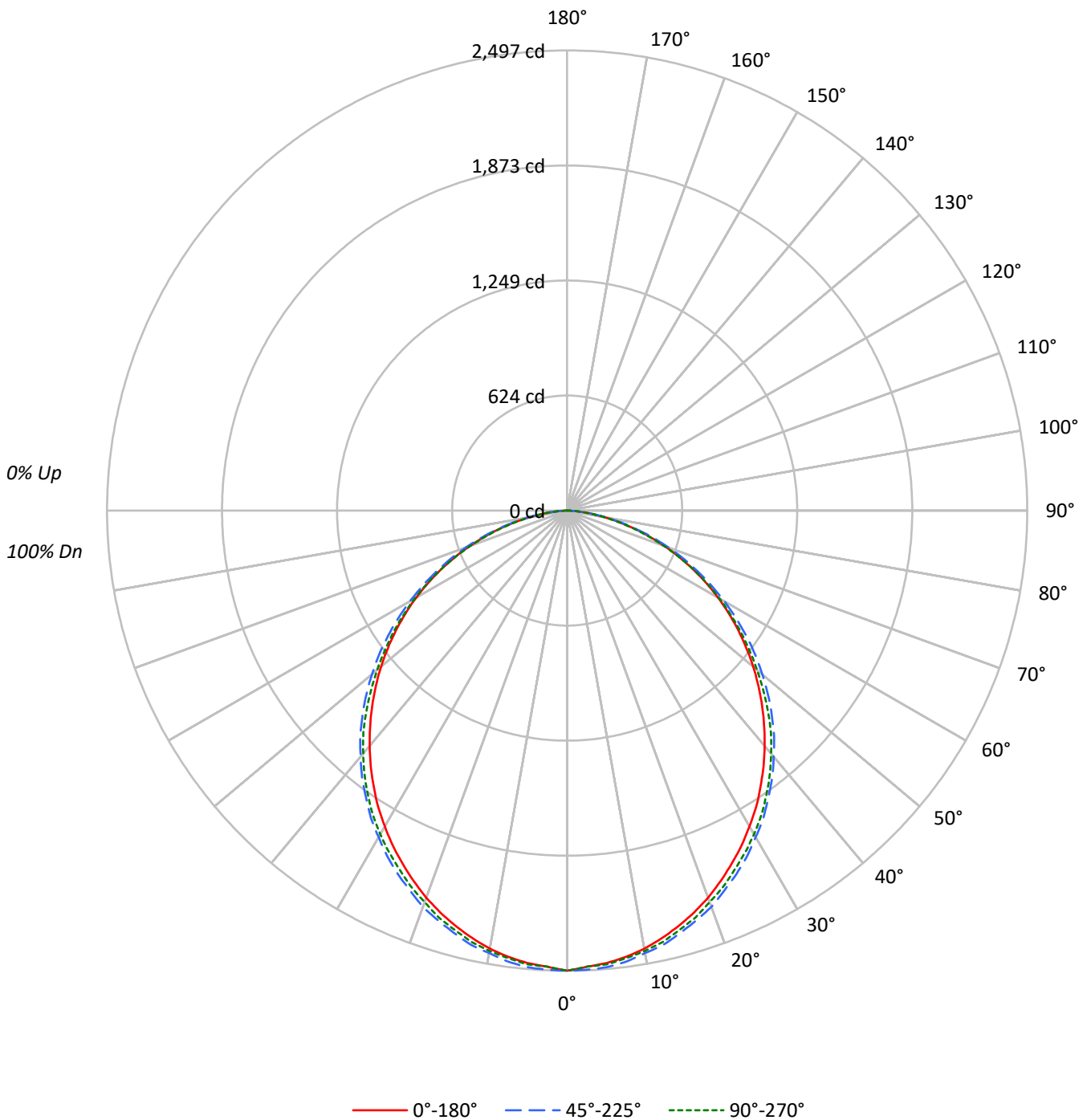
Lumens per Lamp: N/A
Luminaire Lumens: 6563.9 lumens
Efficiency: N/A
Efficacy: 98.6 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.21 / 1.34
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

Input Watts (W): 66.6
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°	6719	6719	6719
5°	6656	6719	6678
10°	6595	6662	6630
15°	6504	6609	6563
20°	6402	6554	6475
25°	6277	6459	6385
30°	6150	6359	6301
35°	6012	6250	6192
40°	5856	6125	6047
45°	5691	5978	5865
50°	5520	5787	5635
55°	5320	5568	5398
60°	5093	5304	5141
65°	4800	4984	4804
70°	4416	4595	4367
75°	3890	4065	3829
80°	3160	3298	3124
85°	2201	2347	2288



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	235.1	3.6
10°-20°	666.3	10.2
20°-30°	993.8	15.1
30°-40°	1177.7	17.9
40°-50°	1191.6	18.2
50°-60°	1040.7	15.9
60°-70°	760.5	11.6
70°-80°	404.6	6.2
80°-90°	93.5	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°	1895.3	28.9
0°-40°	3072.9	46.8
0°-60°	5305.2	80.8
0°-90°	6563.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	6563.9	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2497	2497	2497	2497	2497	
5°	2464	2469	2487	2493	2472	234
15°	2335	2350	2372	2387	2356	658
25°	2114	2140	2175	2184	2150	974
35°	1830	1859	1902	1916	1885	1144
45°	1496	1522	1571	1572	1541	1154
55°	1134	1157	1187	1170	1150	1014
65°	754	769	783	767	754	746
75°	374	383	391	377	368	398
85°	71	73	76	77	74	90
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2496.7	2496.7	2496.7	2496.7	2496.7
2.5°	2477.2	2485.2	2493.6	2497.2	2476.9
5°	2464.2	2468.8	2487.3	2493.0	2472.0
7.5°	2442.8	2449.9	2467.8	2470.4	2450.1
10°	2413.7	2426.2	2438.1	2451.2	2426.4
12.5°	2376.5	2393.4	2413.7	2416.0	2397.3
15°	2334.6	2350.2	2372.3	2386.6	2355.7
17.5°	2287.8	2302.9	2331.5	2334.1	2315.4
20°	2235.5	2254.2	2288.6	2294.6	2261.0
22.5°	2176.2	2201.4	2230.0	2235.8	2211.1
25°	2114.0	2140.0	2175.4	2183.5	2150.4
27.5°	2049.0	2074.0	2113.8	2119.5	2091.7
30°	1979.3	2002.7	2046.4	2056.0	2027.7
32.5°	1908.5	1931.9	1980.3	1988.4	1960.8
35°	1830.0	1858.6	1902.5	1915.8	1884.9
37.5°	1749.9	1777.7	1827.6	1839.6	1806.3
40°	1666.9	1694.5	1743.6	1753.5	1721.5
42.5°	1582.1	1609.6	1662.2	1663.8	1637.2
45°	1495.5	1522.0	1570.9	1572.2	1541.2
47.5°	1407.5	1434.3	1478.0	1473.1	1444.0
50°	1318.6	1344.1	1382.3	1372.4	1346.1
52.5°	1226.5	1251.2	1287.4	1271.2	1246.5
55°	1133.9	1156.8	1186.9	1169.8	1150.5
57.5°	1040.5	1063.6	1086.8	1069.4	1052.7
60°	946.3	966.6	985.6	967.9	955.2
62.5°	850.6	868.0	884.4	867.5	855.5
65°	753.8	769.2	782.7	767.1	754.4
67.5°	657.6	670.6	683.1	667.0	653.7
70°	561.3	572.5	584.0	567.3	555.1
72.5°	466.4	476.3	486.4	470.3	459.6
75°	374.1	382.6	391.0	376.7	368.3
77.5°	285.9	293.2	298.9	289.8	281.7
80°	203.9	209.4	212.8	209.1	201.6
82.5°	131.1	135.0	136.8	136.6	131.6
85°	71.3	72.6	76.0	76.7	74.1
87.5°	27.6	29.4	30.2	32.5	29.9
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)