

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: P489642

Luminaire Tested: **CLM-24-4-INS-A19156-LD4-2STD-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: P489642
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-LD4-2STD-40-120-EDD-90
Description: 2X4 CLM LED LUMINAIRE WITH A19156 LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

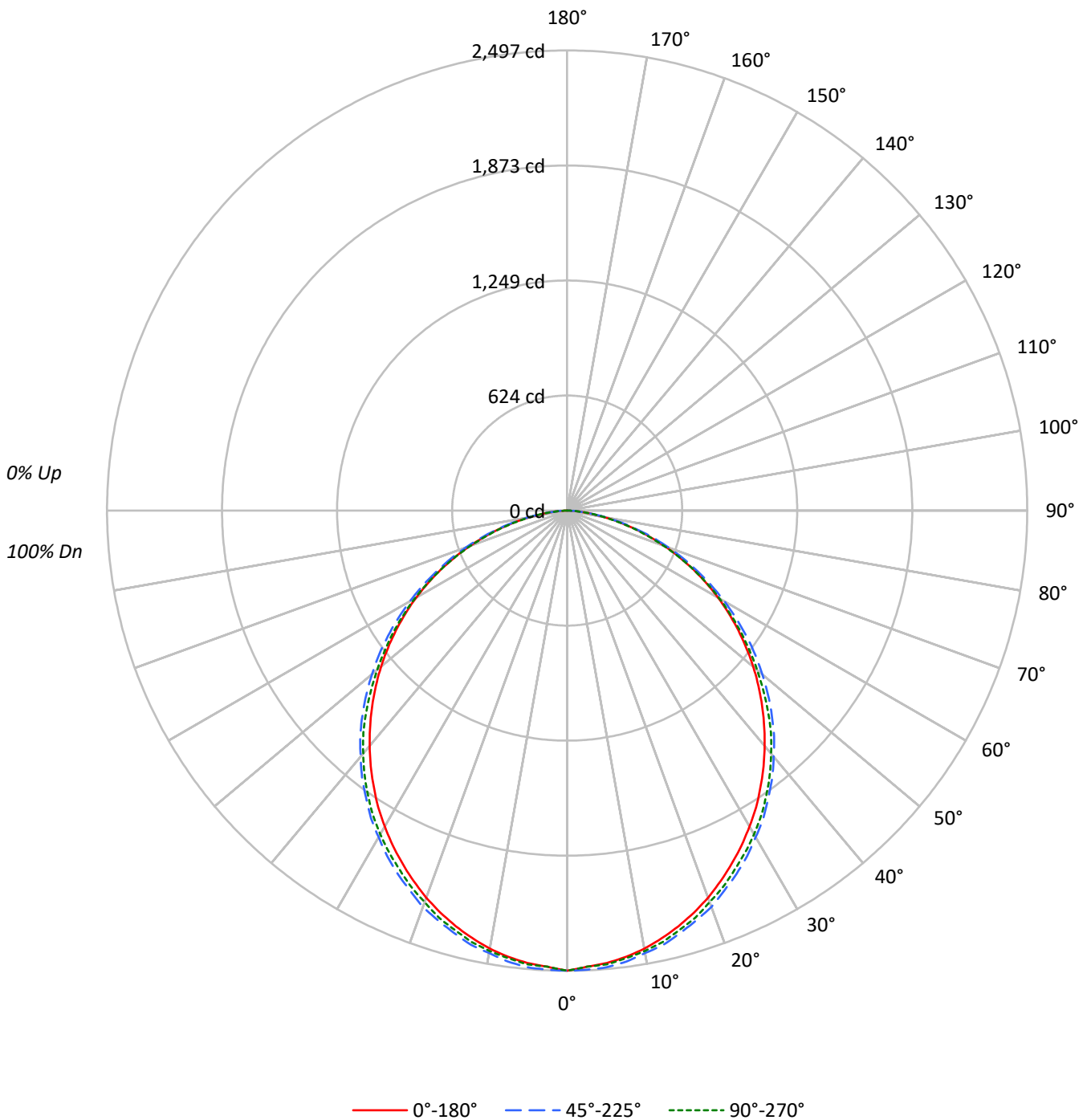
Lumens per Lamp: N/A
Luminaire Lumens: 6564.2 lumens
Efficiency: N/A
Efficacy: 98.6 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.21 / 1.34
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

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°	3359	3359	3359
5°	3328	3360	3339
10°	3298	3331	3315
15°	3252	3305	3282
20°	3201	3277	3238
25°	3139	3230	3193
30°	3075	3180	3150
35°	3006	3125	3096
40°	2928	3063	3024
45°	2846	2989	2933
50°	2760	2894	2818
55°	2660	2784	2699
60°	2547	2652	2570
65°	2400	2492	2402
70°	2209	2297	2184
75°	1945	2033	1915
80°	1580	1649	1562
85°	1101	1173	1144



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	235.1	3.6
10°-20°	666.4	10.2
20°-30°	993.8	15.1
30°-40°	1177.7	17.9
40°-50°	1191.7	18.2
50°-60°	1040.7	15.9
60°-70°	760.5	11.6
70°-80°	404.7	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°	3073.1	46.8
0°-60°	5305.5	80.8
0°-90°	6564.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	6564.2	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	2176	2184	2150	974
35°	1830	1859	1903	1916	1885	1144
45°	1496	1522	1571	1572	1541	1154
55°	1134	1157	1187	1170	1151	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°	2496.8	2496.8	2496.8	2496.8	2496.8
2.5°	2477.3	2485.3	2493.7	2497.3	2477.0
5°	2464.3	2469.0	2487.4	2493.1	2472.1
7.5°	2442.9	2450.0	2467.9	2470.5	2450.2
10°	2413.8	2426.3	2438.3	2451.3	2426.6
12.5°	2376.6	2393.5	2413.8	2416.1	2397.4
15°	2334.7	2350.3	2372.4	2386.8	2355.8
17.5°	2287.9	2303.0	2331.6	2334.2	2315.5
20°	2235.6	2254.3	2288.7	2294.7	2261.1
22.5°	2176.3	2201.5	2230.1	2235.9	2211.2
25°	2114.1	2140.1	2175.5	2183.6	2150.5
27.5°	2049.1	2074.1	2113.9	2119.6	2091.8
30°	1979.4	2002.8	2046.5	2056.1	2027.8
32.5°	1908.6	1932.0	1980.4	1988.5	1960.9
35°	1830.1	1858.7	1902.6	1915.9	1884.9
37.5°	1749.9	1777.8	1827.7	1839.7	1806.4
40°	1667.0	1694.5	1743.7	1753.6	1721.6
42.5°	1582.1	1609.7	1662.3	1663.8	1637.3
45°	1495.5	1522.1	1571.0	1572.3	1541.3
47.5°	1407.6	1434.4	1478.1	1473.2	1444.0
50°	1318.6	1344.1	1382.4	1372.5	1346.2
52.5°	1226.5	1251.3	1287.4	1271.3	1246.6
55°	1133.9	1156.8	1187.0	1169.8	1150.6
57.5°	1040.5	1063.7	1086.8	1069.4	1052.8
60°	946.4	966.7	985.7	968.0	955.2
62.5°	850.6	868.1	884.5	867.6	855.6
65°	753.9	769.2	782.8	767.1	754.4
67.5°	657.6	670.6	683.1	667.0	653.7
70°	561.4	572.6	584.0	567.4	555.1
72.5°	466.4	476.3	486.5	470.3	459.7
75°	374.1	382.7	391.0	376.7	368.4
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)