

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: P489585

Luminaire Tested: **CLM-24-4-INS-A19156-LD4-1HI-50-120-EDD**

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: P489585
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-LD4-1HI-50-120-EDD
Description: 2X4 CLM LED LUMINAIRE WITH A19156 LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

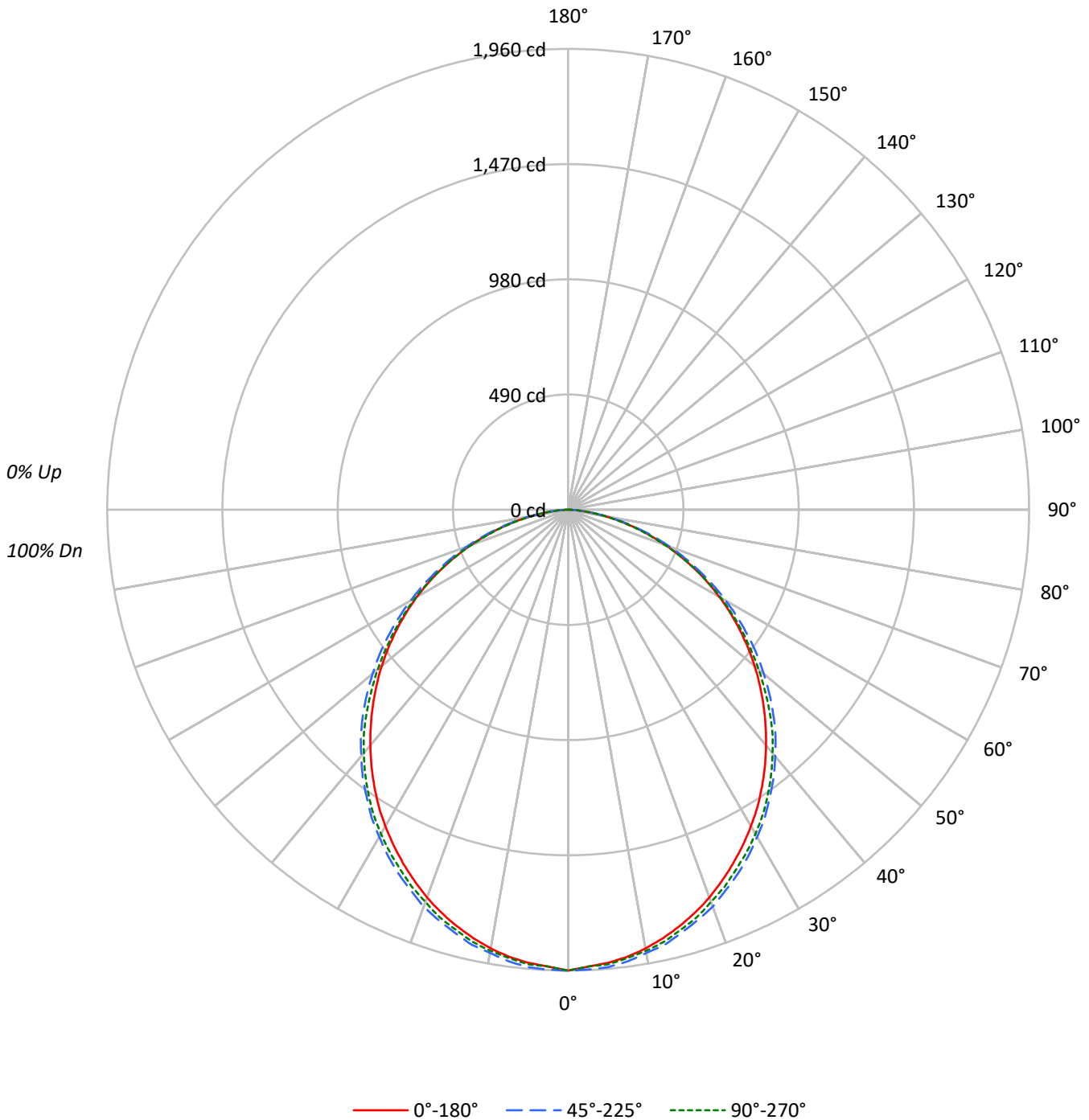
Lumens per Lamp: N/A
Luminaire Lumens: 5153.5 lumens
Efficiency: N/A
Efficacy: 119.3 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.21 / 1.34
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 43.2
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	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°	2637	2637	2637
5°	2613	2638	2621
10°	2589	2615	2603
15°	2553	2595	2576
20°	2513	2573	2542
25°	2464	2536	2507
30°	2414	2496	2473
35°	2360	2453	2431
40°	2299	2405	2374
45°	2234	2347	2303
50°	2167	2272	2212
55°	2088	2186	2119
60°	1999	2082	2018
65°	1884	1956	1886
70°	1734	1804	1714
75°	1527	1596	1503
80°	1241	1295	1227
85°	865	920	898



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	184.6	3.6
10°-20°	523.2	10.2
20°-30°	780.3	15.1
30°-40°	924.6	17.9
40°-50°	935.6	18.2
50°-60°	817.1	15.9
60°-70°	597.1	11.6
70°-80°	317.7	6.2
80°-90°	73.4	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°	1488.0	28.9
0°-40°	2412.6	46.8
0°-60°	4165.3	80.8
0°-90°	5153.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5153.5	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1960	1960	1960	1960	1960	
5°	1935	1938	1953	1957	1941	183
15°	1833	1845	1863	1874	1850	517
25°	1660	1680	1708	1714	1688	765
35°	1437	1459	1494	1504	1480	899
45°	1174	1195	1233	1234	1210	906
55°	890	908	932	918	903	796
65°	592	604	614	602	592	586
75°	294	300	307	296	289	312
85°	56	57	60	60	58	71
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1960.2	1960.2	1960.2	1960.2	1960.2
2.5°	1944.9	1951.2	1957.8	1960.6	1944.7
5°	1934.7	1938.4	1952.9	1957.3	1940.8
7.5°	1917.9	1923.4	1937.5	1939.6	1923.7
10°	1895.1	1904.9	1914.3	1924.5	1905.1
12.5°	1865.9	1879.1	1895.1	1896.9	1882.2
15°	1833.0	1845.2	1862.6	1873.8	1849.5
17.5°	1796.2	1808.1	1830.5	1832.6	1817.9
20°	1755.2	1769.9	1796.8	1801.5	1775.2
22.5°	1708.6	1728.4	1750.9	1755.4	1736.0
25°	1659.8	1680.2	1708.0	1714.3	1688.4
27.5°	1608.7	1628.3	1659.6	1664.1	1642.2
30°	1554.0	1572.4	1606.7	1614.2	1592.0
32.5°	1498.4	1516.8	1554.8	1561.1	1539.5
35°	1436.8	1459.2	1493.7	1504.2	1479.9
37.5°	1373.9	1395.7	1434.9	1444.3	1418.2
40°	1308.7	1330.4	1369.0	1376.7	1351.6
42.5°	1242.1	1263.8	1305.0	1306.3	1285.4
45°	1174.1	1195.0	1233.4	1234.4	1210.1
47.5°	1105.1	1126.1	1160.4	1156.6	1133.7
50°	1035.2	1055.3	1085.3	1077.5	1056.9
52.5°	962.9	982.4	1010.7	998.1	978.7
55°	890.2	908.2	931.9	918.4	903.3
57.5°	816.9	835.1	853.3	839.6	826.5
60°	743.0	758.9	773.8	759.9	749.9
62.5°	667.8	681.5	694.4	681.1	671.7
65°	591.9	603.9	614.5	602.3	592.3
67.5°	516.3	526.5	536.3	523.6	513.2
70°	440.7	449.5	458.5	445.4	435.8
72.5°	366.2	373.9	381.9	369.2	360.9
75°	293.7	300.4	307.0	295.7	289.2
77.5°	224.4	230.2	234.7	227.5	221.2
80°	160.1	164.4	167.1	164.2	158.3
82.5°	102.9	106.0	107.4	107.2	103.3
85°	56.0	57.0	59.6	60.2	58.2
87.5°	21.6	23.1	23.7	25.5	23.5
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)