

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: P489194

Luminaire Tested: **CLM-24-2-INS-A19156-LD4-5LO-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: P489194
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-LD4-5LO-30-120-EDD-90
Description: 2X2 CLM LED LUMINAIRE WITH A19156 LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

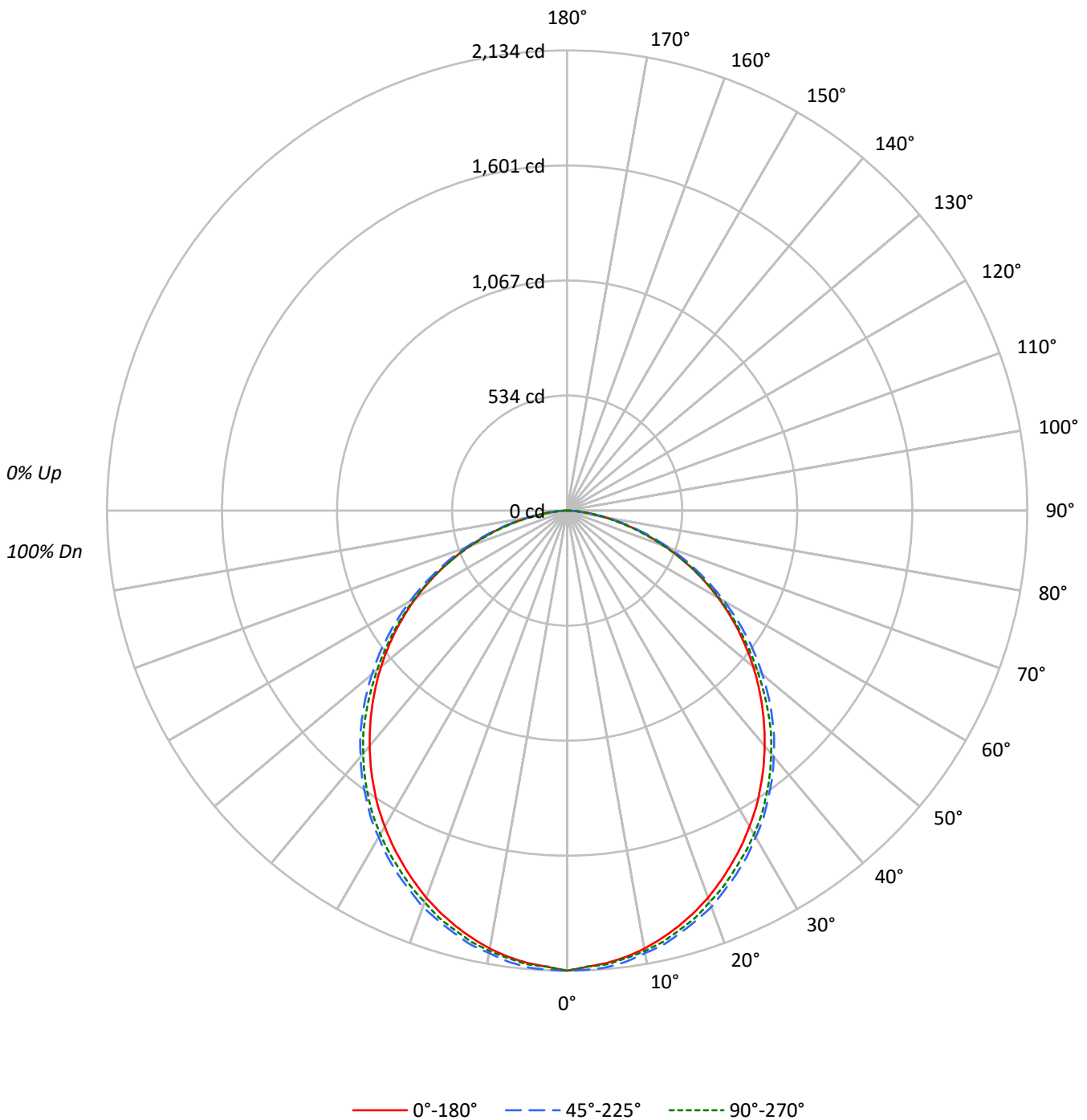
Lumens per Lamp: N/A
Luminaire Lumens: 5610.0 lumens
Efficiency: N/A
Efficacy: 95.9 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.21 / 1.34
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

Input Watts (W): 58.5
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°	5742	5742	5742
5°	5689	5742	5707
10°	5637	5694	5667
15°	5559	5649	5609
20°	5471	5601	5534
25°	5365	5521	5457
30°	5256	5435	5385
35°	5138	5342	5292
40°	5004	5235	5168
45°	4864	5109	5013
50°	4718	4946	4816
55°	4547	4760	4613
60°	4353	4534	4394
65°	4103	4260	4105
70°	3775	3927	3733
75°	3324	3474	3273
80°	2701	2819	2670
85°	1880	2004	1958



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	201.0	3.6
10°-20°	569.5	10.2
20°-30°	849.4	15.1
30°-40°	1006.5	17.9
40°-50°	1018.4	18.2
50°-60°	889.5	15.9
60°-70°	650.0	11.6
70°-80°	345.8	6.2
80°-90°	79.9	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°	1619.8	28.9
0°-40°	2626.3	46.8
0°-60°	4534.3	80.8
0°-90°	5610.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5610.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2134	2134	2134	2134	2134	
5°	2106	2110	2126	2131	2113	200
15°	1995	2009	2028	2040	2013	563
25°	1807	1829	1859	1866	1838	832
35°	1564	1588	1626	1637	1611	978
45°	1278	1301	1343	1344	1317	986
55°	969	989	1014	1000	983	866
65°	644	657	669	656	645	638
75°	320	327	334	322	315	340
85°	61	62	65	66	63	77
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2133.8	2133.8	2133.8	2133.8	2133.8
2.5°	2117.2	2124.1	2131.2	2134.3	2116.9
5°	2106.1	2110.1	2125.8	2130.7	2112.7
7.5°	2087.8	2093.8	2109.2	2111.4	2094.0
10°	2062.9	2073.6	2083.8	2094.9	2073.8
12.5°	2031.1	2045.6	2062.9	2064.9	2048.9
15°	1995.3	2008.7	2027.6	2039.8	2013.3
17.5°	1955.3	1968.2	1992.7	1994.9	1978.9
20°	1910.6	1926.6	1956.0	1961.1	1932.4
22.5°	1859.9	1881.5	1906.0	1910.9	1889.7
25°	1806.8	1829.0	1859.3	1866.2	1837.9
27.5°	1751.2	1772.6	1806.6	1811.5	1787.7
30°	1691.6	1711.7	1749.0	1757.2	1733.0
32.5°	1631.2	1651.2	1692.5	1699.4	1675.9
35°	1564.0	1588.5	1626.1	1637.4	1610.9
37.5°	1495.6	1519.3	1562.0	1572.3	1543.8
40°	1424.6	1448.2	1490.2	1498.7	1471.3
42.5°	1352.2	1375.7	1420.6	1422.0	1399.3
45°	1278.1	1300.8	1342.6	1343.7	1317.3
47.5°	1203.0	1225.9	1263.2	1259.0	1234.1
50°	1126.9	1148.7	1181.4	1173.0	1150.5
52.5°	1048.2	1069.4	1100.3	1086.5	1065.4
55°	969.1	988.7	1014.5	999.8	983.3
57.5°	889.3	909.1	928.9	914.0	899.7
60°	808.8	826.1	842.4	827.3	816.4
62.5°	727.0	741.9	755.9	741.4	731.2
65°	644.3	657.4	669.0	655.6	644.7
67.5°	562.0	573.1	583.8	570.0	558.7
70°	479.8	489.3	499.1	484.9	474.4
72.5°	398.6	407.1	415.7	402.0	392.8
75°	319.7	327.0	334.1	321.9	314.8
77.5°	244.3	250.6	255.4	247.7	240.8
80°	174.3	179.0	181.9	178.7	172.3
82.5°	112.1	115.4	116.9	116.7	112.5
85°	60.9	62.0	64.9	65.6	63.4
87.5°	23.6	25.1	25.8	27.8	25.6
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)