

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: P489081

Luminaire Tested: **CLM-24-2-INS-A19156-LD4-2HI-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: P489081
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-LD4-2HI-50-120-EDD
Description: 2X2 CLM LED LUMINAIRE WITH A19156 LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

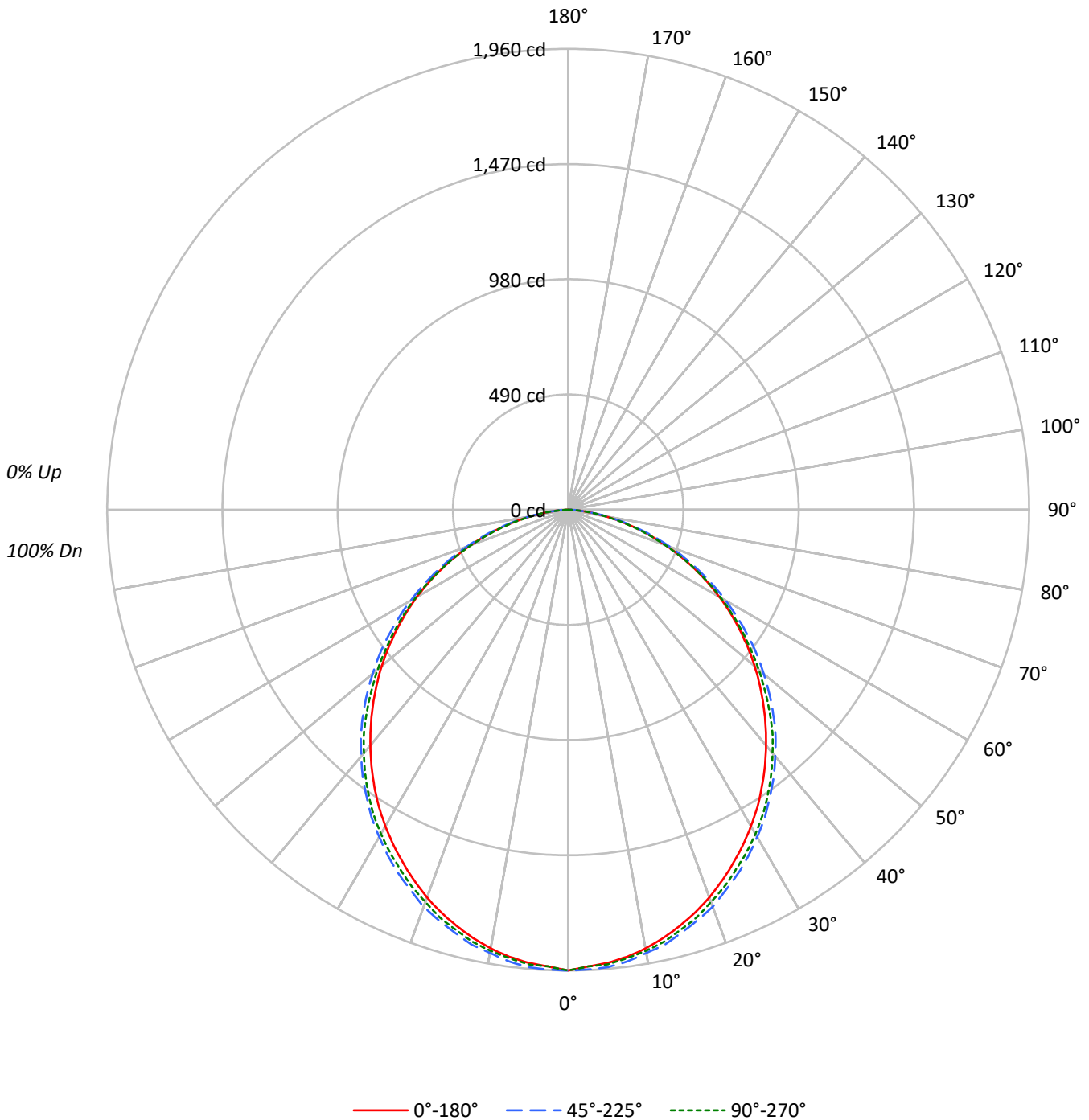
Lumens per Lamp: N/A
Luminaire Lumens: 5153.3 lumens
Efficiency: N/A
Efficacy: 119.3 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.21 / 1.34
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

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°	5275	5275	5275
5°	5226	5275	5242
10°	5178	5231	5205
15°	5106	5189	5152
20°	5026	5145	5083
25°	4928	5071	5013
30°	4828	4992	4946
35°	4720	4907	4861
40°	4597	4809	4748
45°	4468	4693	4605
50°	4334	4543	4425
55°	4176	4372	4238
60°	3999	4165	4036
65°	3768	3913	3771
70°	3467	3607	3429
75°	3054	3191	3007
80°	2481	2590	2453
85°	1729	1840	1797



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	184.6	3.6
10°-20°	523.1	10.2
20°-30°	780.2	15.1
30°-40°	924.6	17.9
40°-50°	935.5	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°	2412.5	46.8
0°-60°	4165.1	80.8
0°-90°	5153.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5153.3	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	1862	1874	1849	517
25°	1660	1680	1708	1714	1688	765
35°	1437	1459	1494	1504	1480	898
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°	1960.1	1960.1	1960.1	1960.1	1960.1
2.5°	1944.8	1951.1	1957.7	1960.5	1944.6
5°	1934.6	1938.3	1952.8	1957.3	1940.7
7.5°	1917.9	1923.4	1937.5	1939.5	1923.6
10°	1895.0	1904.8	1914.2	1924.4	1905.0
12.5°	1865.8	1879.1	1895.0	1896.8	1882.1
15°	1832.9	1845.2	1862.5	1873.7	1849.4
17.5°	1796.1	1808.0	1830.5	1832.5	1817.8
20°	1755.1	1769.8	1796.8	1801.5	1775.1
22.5°	1708.5	1728.3	1750.8	1755.3	1735.9
25°	1659.7	1680.1	1707.9	1714.2	1688.3
27.5°	1608.7	1628.3	1659.5	1664.0	1642.2
30°	1553.9	1572.3	1606.6	1614.2	1591.9
32.5°	1498.4	1516.8	1554.7	1561.1	1539.4
35°	1436.7	1459.2	1493.7	1504.1	1479.8
37.5°	1373.8	1395.7	1434.9	1444.3	1418.1
40°	1308.7	1330.3	1368.9	1376.7	1351.5
42.5°	1242.1	1263.7	1305.0	1306.2	1285.4
45°	1174.1	1194.9	1233.3	1234.3	1210.0
47.5°	1105.1	1126.1	1160.4	1156.5	1133.6
50°	1035.2	1055.2	1085.2	1077.5	1056.9
52.5°	962.9	982.3	1010.7	998.0	978.6
55°	890.2	908.2	931.9	918.4	903.3
57.5°	816.9	835.1	853.2	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°	591.8	603.9	614.5	602.3	592.2
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	306.9	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)