

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: P489184

Luminaire Tested: **CLM-24-2-INS-A19156-LD4-5HI-35-120-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: P489184
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-LD4-5HI-35-120-EDD-90
Description: 2X2 CLM LED LUMINAIRE WITH A19156 LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

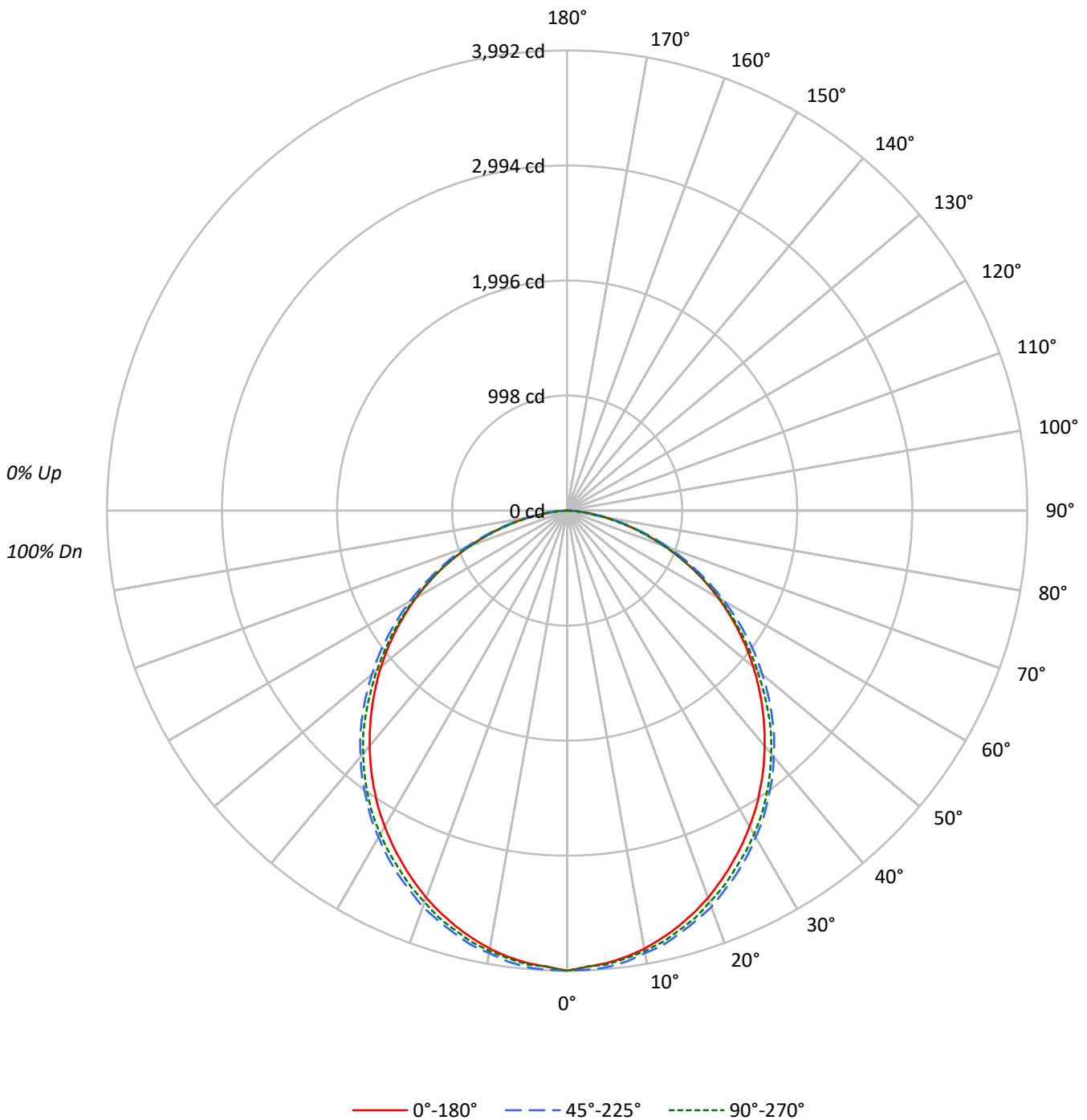
Lumens per Lamp: N/A
Luminaire Lumens: 10495.2 lumens
Efficiency: N/A
Efficacy: 97.2 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.21 / 1.34
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

Input Watts (W): 108
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°	10742	10742	10742
5°	10643	10743	10677
10°	10546	10652	10601
15°	10400	10567	10493
20°	10236	10479	10353
25°	10036	10328	10209
30°	9834	10167	10074
35°	9612	9993	9901
40°	9362	9793	9669
45°	9100	9559	9378
50°	8826	9253	9011
55°	8506	8904	8631
60°	8143	8481	8220
65°	7675	7969	7680
70°	7062	7346	6984
75°	6219	6499	6123
80°	5053	5272	4995
85°	3520	3748	3659



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	376.0	3.6
10°-20°	1065.4	10.2
20°-30°	1589.0	15.1
30°-40°	1883.0	17.9
40°-50°	1905.3	18.2
50°-60°	1664.0	15.9
60°-70°	1216.0	11.6
70°-80°	647.0	6.2
80°-90°	149.5	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°	3030.4	28.9
0°-40°	4913.4	46.8
0°-60°	8482.7	80.8
0°-90°	10495.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	10495.2	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	3992	3992	3992	3992	3992	
5°	3940	3948	3977	3986	3952	374
15°	3733	3758	3793	3816	3767	1052
25°	3380	3422	3478	3491	3438	1557
35°	2926	2972	3042	3063	3014	1830
45°	2391	2434	2512	2514	2464	1845
55°	1813	1850	1898	1870	1840	1621
65°	1205	1230	1252	1226	1206	1193
75°	598	612	625	602	589	636
85°	114	116	121	123	118	144
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	3992.0	3992.0	3992.0	3992.0	3992.0
2.5°	3960.8	3973.7	3987.0	3992.8	3960.4
5°	3940.0	3947.5	3977.0	3986.2	3952.5
7.5°	3905.9	3917.1	3945.8	3950.0	3917.6
10°	3859.3	3879.3	3898.4	3919.2	3879.7
12.5°	3799.8	3826.9	3859.3	3863.1	3833.1
15°	3732.9	3757.8	3793.2	3816.1	3766.6
17.5°	3658.0	3682.1	3727.9	3732.1	3702.1
20°	3574.4	3604.4	3659.3	3668.8	3615.2
22.5°	3479.6	3519.9	3565.7	3574.8	3535.3
25°	3380.2	3421.8	3478.3	3491.2	3438.4
27.5°	3276.2	3316.1	3379.8	3388.9	3344.4
30°	3164.7	3202.2	3272.0	3287.4	3242.1
32.5°	3051.6	3089.0	3166.4	3179.3	3135.2
35°	2926.0	2971.7	3042.0	3063.3	3013.8
37.5°	2797.9	2842.4	2922.3	2941.4	2888.1
40°	2665.2	2709.3	2787.9	2803.7	2752.6
42.5°	2529.6	2573.7	2657.7	2660.2	2617.8
45°	2391.1	2433.5	2511.7	2513.8	2464.3
47.5°	2250.5	2293.4	2363.3	2355.4	2308.8
50°	2108.3	2149.1	2210.2	2194.4	2152.4
52.5°	1961.1	2000.6	2058.4	2032.6	1993.1
55°	1813.0	1849.6	1897.8	1870.4	1839.6
57.5°	1663.7	1700.7	1737.7	1709.8	1683.2
60°	1513.1	1545.6	1575.9	1547.6	1527.3
62.5°	1360.1	1387.9	1414.1	1387.1	1368.0
65°	1205.3	1229.9	1251.5	1226.5	1206.2
67.5°	1051.4	1072.2	1092.2	1066.4	1045.2
70°	897.6	915.4	933.7	907.1	887.6
72.5°	745.7	761.5	777.8	752.0	734.9
75°	598.1	611.8	625.1	602.3	588.9
77.5°	457.1	468.7	477.9	463.3	450.4
80°	326.1	334.8	340.2	334.4	322.3
82.5°	209.6	215.9	218.8	218.4	210.5
85°	114.0	116.0	121.4	122.7	118.5
87.5°	44.1	47.0	48.2	52.0	47.8
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)