

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: P489088

Luminaire Tested: **CLM-24-2-INS-A19156-LD4-2LO-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: P489088
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-LD4-2LO-35-120-EDD-90
Description: 2X2 CLM LED LUMINAIRE WITH A19156 LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

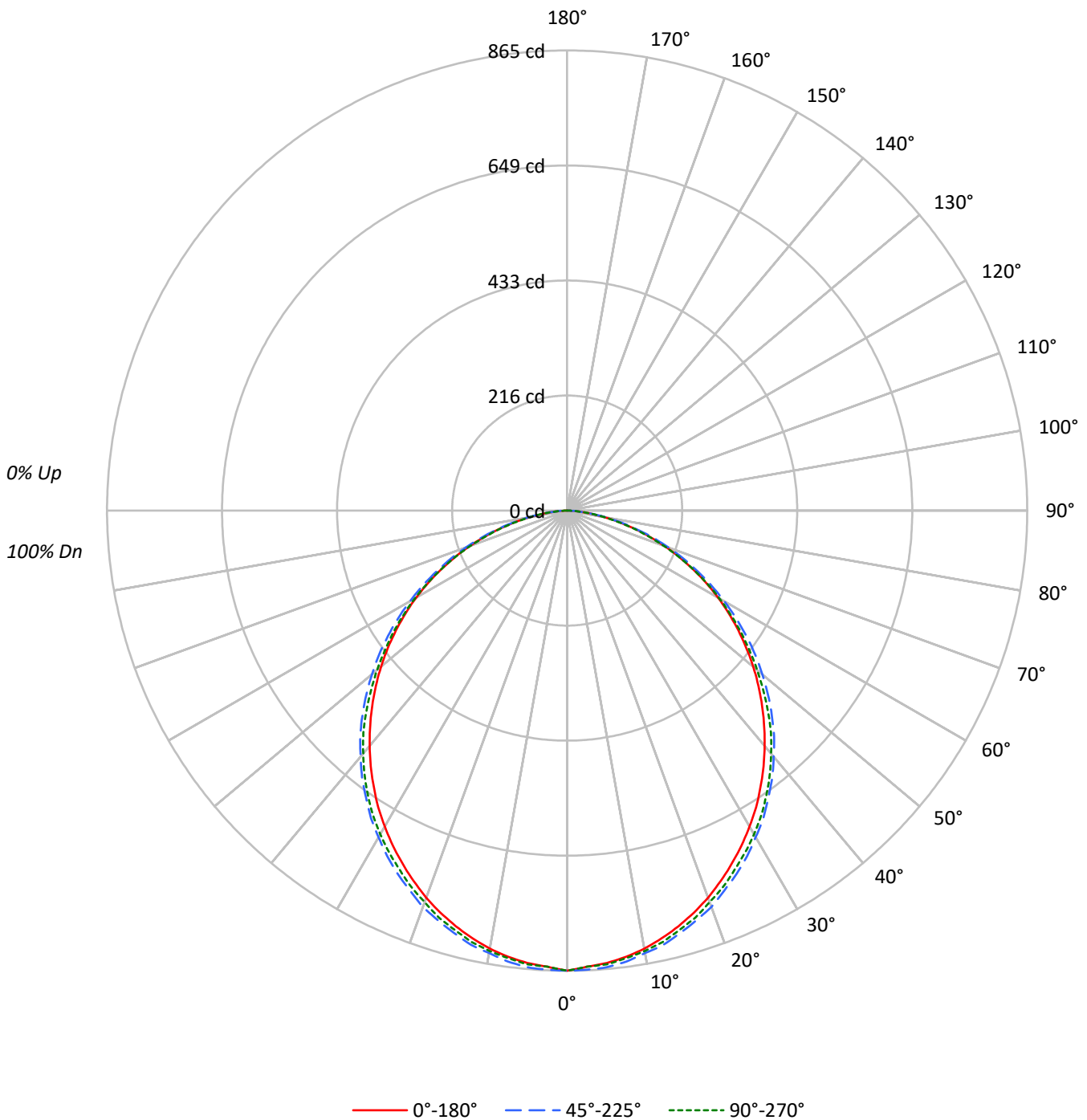
Lumens per Lamp: N/A
Luminaire Lumens: 2274.0 lumens
Efficiency: N/A
Efficacy: 97.2 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.21 / 1.34
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

Input Watts (W): 23.4
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°	2327	2327	2327
5°	2306	2328	2313
10°	2285	2308	2297
15°	2253	2290	2274
20°	2218	2271	2243
25°	2175	2238	2212
30°	2131	2203	2183
35°	2083	2165	2145
40°	2029	2122	2095
45°	1972	2071	2032
50°	1912	2005	1953
55°	1843	1929	1870
60°	1764	1838	1781
65°	1663	1727	1664
70°	1530	1592	1513
75°	1347	1408	1327
80°	1096	1142	1082
85°	763	812	794



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	81.5	3.6
10°-20°	230.8	10.2
20°-30°	344.3	15.1
30°-40°	408.0	17.9
40°-50°	412.8	18.2
50°-60°	360.5	15.9
60°-70°	263.5	11.6
70°-80°	140.2	6.2
80°-90°	32.4	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°	656.6	28.9
0°-40°	1064.6	46.8
0°-60°	1838.0	80.8
0°-90°	2274.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2274.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	865	865	865	865	865	
5°	854	855	862	864	856	81
15°	809	814	822	827	816	228
25°	732	741	754	756	745	337
35°	634	644	659	664	653	396
45°	518	527	544	545	534	400
55°	393	401	411	405	399	351
65°	261	266	271	266	261	258
75°	130	133	135	130	128	138
85°	25	25	26	27	26	31
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	864.9	864.9	864.9	864.9	864.9
2.5°	858.2	861.0	863.9	865.1	858.1
5°	853.7	855.3	861.7	863.7	856.4
7.5°	846.3	848.7	854.9	855.8	848.8
10°	836.2	840.5	844.7	849.2	840.6
12.5°	823.3	829.2	836.2	837.0	830.5
15°	808.8	814.2	821.9	826.8	816.1
17.5°	792.6	797.8	807.7	808.6	802.1
20°	774.5	781.0	792.9	794.9	783.3
22.5°	753.9	762.7	772.6	774.6	766.0
25°	732.4	741.4	753.7	756.4	745.0
27.5°	709.9	718.5	732.3	734.3	724.6
30°	685.7	693.8	709.0	712.3	702.5
32.5°	661.2	669.3	686.1	688.9	679.3
35°	634.0	643.9	659.1	663.7	653.0
37.5°	606.2	615.9	633.2	637.3	625.8
40°	577.5	587.0	604.1	607.5	596.4
42.5°	548.1	557.6	575.9	576.4	567.2
45°	518.1	527.3	544.2	544.7	533.9
47.5°	487.6	496.9	512.0	510.3	500.2
50°	456.8	465.6	478.9	475.5	466.4
52.5°	424.9	433.5	446.0	440.4	431.8
55°	392.8	400.8	411.2	405.3	398.6
57.5°	360.5	368.5	376.5	370.5	364.7
60°	327.8	334.9	341.5	335.3	330.9
62.5°	294.7	300.7	306.4	300.5	296.4
65°	261.2	266.5	271.2	265.8	261.3
67.5°	227.8	232.3	236.6	231.1	226.5
70°	194.5	198.3	202.3	196.5	192.3
72.5°	161.6	165.0	168.5	162.9	159.2
75°	129.6	132.6	135.4	130.5	127.6
77.5°	99.0	101.6	103.5	100.4	97.6
80°	70.7	72.5	73.7	72.5	69.8
82.5°	45.4	46.8	47.4	47.3	45.6
85°	24.7	25.1	26.3	26.6	25.7
87.5°	9.6	10.2	10.5	11.3	10.4
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)