

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: P489592

Luminaire Tested: **CLM-24-4-INS-A19156-LD4-1LO-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: P489592
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-LD4-1LO-35-120-EDD-90
Description: 2X4 CLM LED LUMINAIRE WITH A19156 LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

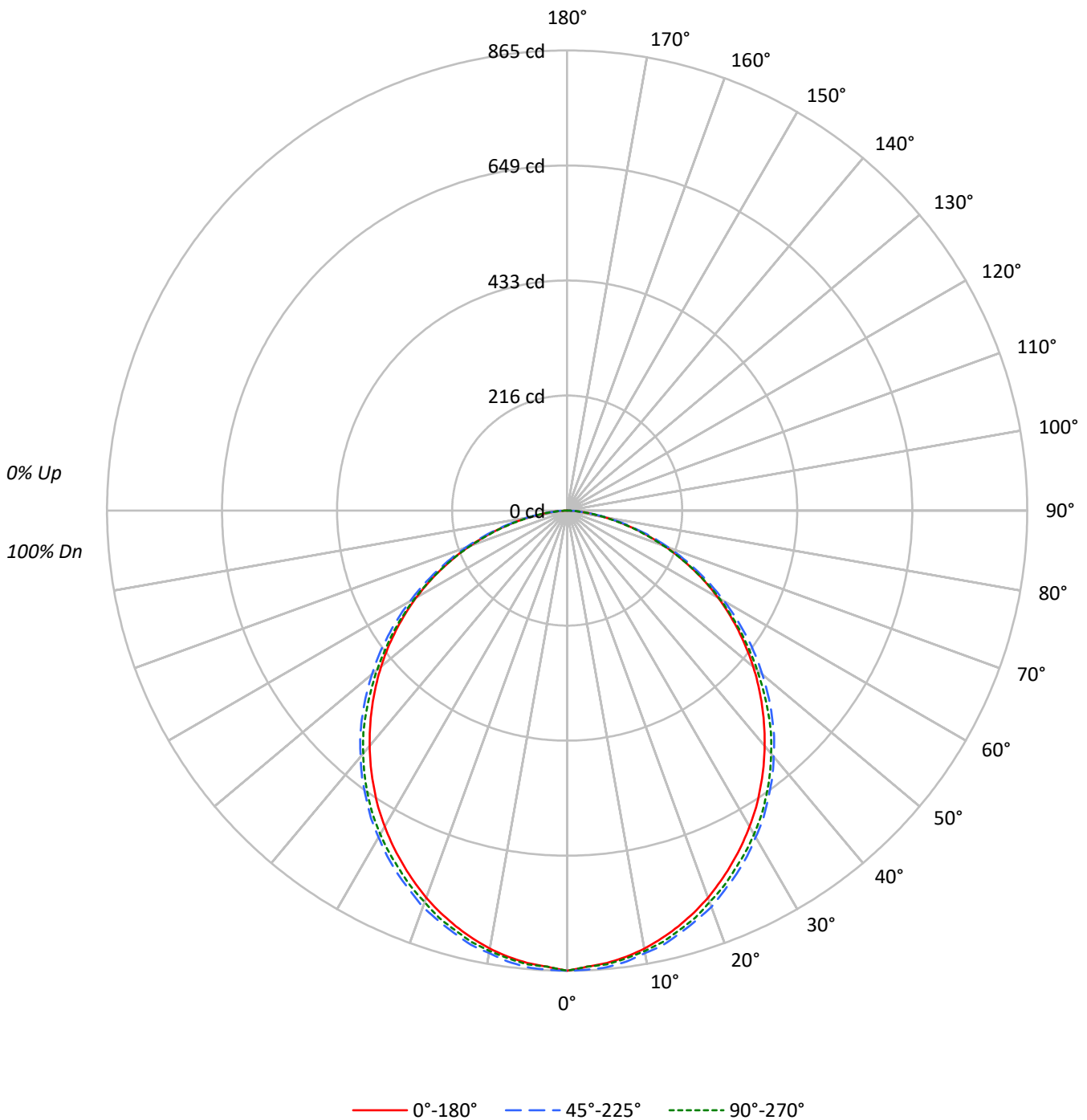
Lumens per Lamp: N/A
Luminaire Lumens: 2274.1 lumens
Efficiency: N/A
Efficacy: 97.2 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.21 / 1.34
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

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°	1164	1164	1164
5°	1153	1164	1157
10°	1142	1154	1149
15°	1127	1145	1137
20°	1109	1135	1122
25°	1087	1119	1106
30°	1065	1102	1091
35°	1041	1083	1073
40°	1014	1061	1048
45°	986	1036	1016
50°	956	1002	976
55°	921	965	935
60°	882	919	890
65°	832	863	832
70°	765	796	756
75°	674	704	663
80°	548	571	541
85°	381	406	397



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	81.5	3.6
10°-20°	230.9	10.2
20°-30°	344.3	15.1
30°-40°	408.0	17.9
40°-50°	412.8	18.2
50°-60°	360.6	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°	2274.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2274.1	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	136	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°	865.0	865.0	865.0	865.0	865.0
2.5°	858.2	861.0	863.9	865.2	858.1
5°	853.7	855.3	861.7	863.7	856.4
7.5°	846.3	848.8	855.0	855.9	848.9
10°	836.2	840.6	844.7	849.2	840.7
12.5°	823.4	829.2	836.2	837.0	830.6
15°	808.8	814.2	821.9	826.9	816.1
17.5°	792.6	797.8	807.8	808.7	802.2
20°	774.5	781.0	792.9	795.0	783.3
22.5°	754.0	762.7	772.6	774.6	766.0
25°	732.4	741.4	753.7	756.5	745.0
27.5°	709.9	718.5	732.3	734.3	724.7
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	587.1	604.1	607.5	596.4
42.5°	548.1	557.7	575.9	576.4	567.2
45°	518.1	527.3	544.2	544.7	534.0
47.5°	487.6	496.9	512.1	510.4	500.3
50°	456.8	465.7	478.9	475.5	466.4
52.5°	424.9	433.5	446.0	440.4	431.9
55°	392.8	400.8	411.2	405.3	398.6
57.5°	360.5	368.5	376.5	370.5	364.7
60°	327.9	334.9	341.5	335.3	330.9
62.5°	294.7	300.7	306.4	300.6	296.4
65°	261.2	266.5	271.2	265.8	261.4
67.5°	227.8	232.3	236.7	231.1	226.5
70°	194.5	198.4	202.3	196.6	192.3
72.5°	161.6	165.0	168.5	162.9	159.2
75°	129.6	132.6	135.5	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)