

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: P488654

Luminaire Tested: **CLM-12-4-INS-A19156-LD4-1LO-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: P488654
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-12-4-INS-A19156-LD4-1LO-30-120-EDD-90
Description: 1X4 CLM LED LUMINAIRE WITH A19156 LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

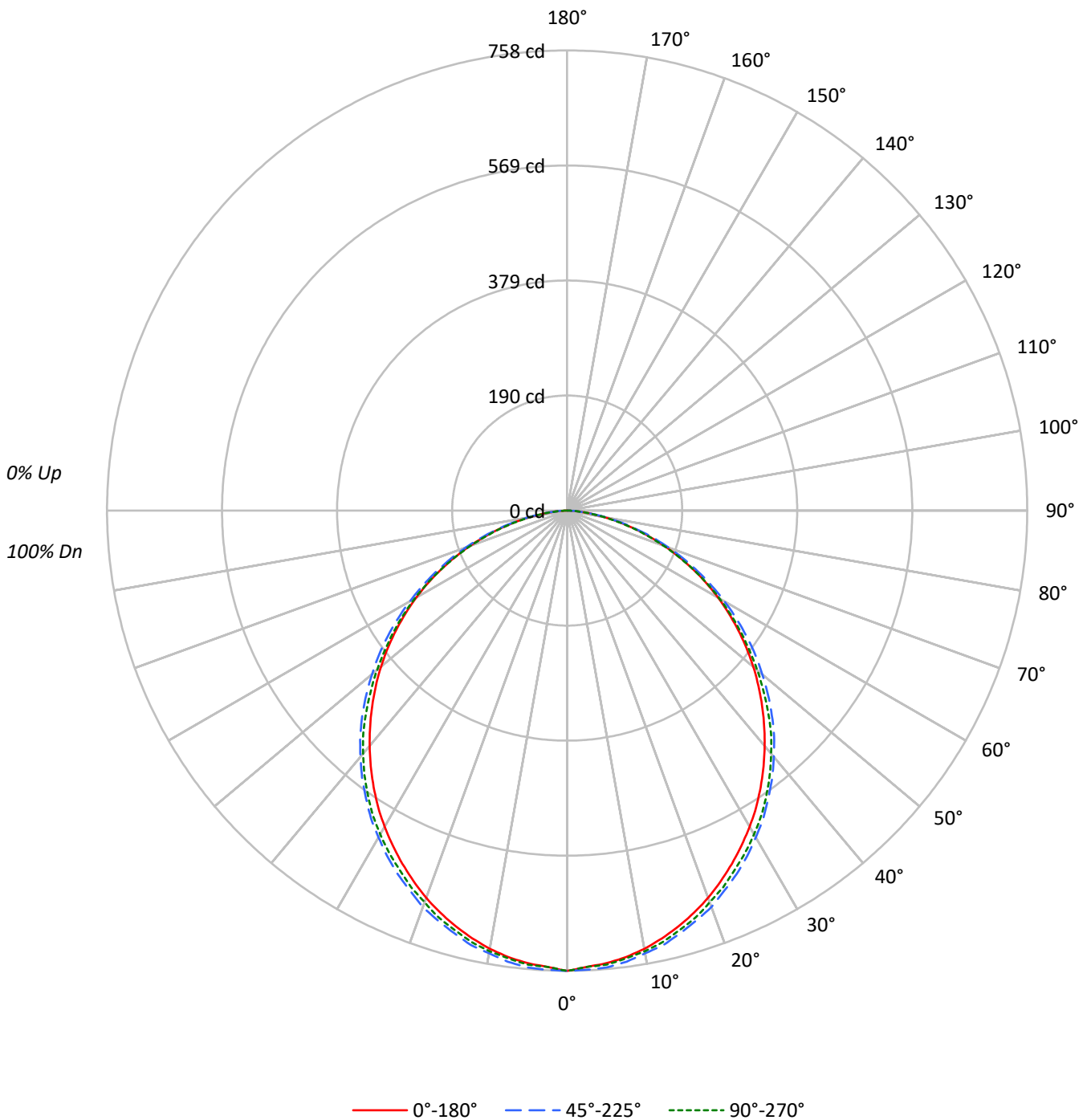
Lumens per Lamp: N/A
Luminaire Lumens: 1993.3 lumens
Efficiency: N/A
Efficacy: 85.2 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.21 / 1.34
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 23.4
Input Voltage (V): NR
Input Current (A_{in}): 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°	2040	2040	2040
5°	2021	2040	2028
10°	2003	2023	2014
15°	1975	2007	1993
20°	1944	1990	1966
25°	1906	1961	1939
30°	1868	1931	1913
35°	1826	1898	1880
40°	1778	1860	1837
45°	1728	1815	1781
50°	1676	1757	1711
55°	1615	1691	1639
60°	1547	1611	1561
65°	1457	1514	1459
70°	1341	1395	1327
75°	1181	1234	1163
80°	959	1001	948
85°	667	713	695



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	71.4	3.6
10°-20°	202.3	10.2
20°-30°	301.8	15.1
30°-40°	357.6	17.9
40°-50°	361.9	18.2
50°-60°	316.0	15.9
60°-70°	230.9	11.6
70°-80°	122.9	6.2
80°-90°	28.4	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°	575.5	28.9
0°-40°	933.2	46.8
0°-60°	1611.1	80.8
0°-90°	1993.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1993.3	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	758	758	758	758	758	
5°	748	750	755	757	751	71
15°	709	714	720	725	715	200
25°	642	650	661	663	653	296
35°	556	564	578	582	572	348
45°	454	462	477	477	468	350
55°	344	351	360	355	349	308
65°	229	234	238	233	229	227
75°	114	116	119	114	112	121
85°	22	22	23	23	22	27
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	758.2	758.2	758.2	758.2	758.2
2.5°	752.3	754.7	757.2	758.3	752.2
5°	748.3	749.7	755.3	757.1	750.7
7.5°	741.8	744.0	749.4	750.2	744.0
10°	733.0	736.8	740.4	744.4	736.9
12.5°	721.7	726.8	733.0	733.7	728.0
15°	709.0	713.7	720.4	724.8	715.4
17.5°	694.7	699.3	708.0	708.8	703.1
20°	678.9	684.6	695.0	696.8	686.6
22.5°	660.9	668.5	677.2	678.9	671.4
25°	642.0	649.9	660.6	663.1	653.0
27.5°	622.2	629.8	641.9	643.6	635.2
30°	601.1	608.2	621.4	624.4	615.8
32.5°	579.6	586.7	601.4	603.8	595.5
35°	555.7	564.4	577.8	581.8	572.4
37.5°	531.4	539.8	555.0	558.6	548.5
40°	506.2	514.6	529.5	532.5	522.8
42.5°	480.4	488.8	504.8	505.2	497.2
45°	454.1	462.2	477.0	477.4	468.0
47.5°	427.4	435.6	448.8	447.3	438.5
50°	400.4	408.2	419.8	416.8	408.8
52.5°	372.5	380.0	390.9	386.0	378.5
55°	344.3	351.3	360.4	355.2	349.4
57.5°	316.0	323.0	330.0	324.7	319.7
60°	287.4	293.5	299.3	293.9	290.1
62.5°	258.3	263.6	268.6	263.4	259.8
65°	228.9	233.6	237.7	233.0	229.1
67.5°	199.7	203.6	207.4	202.5	198.5
70°	170.5	173.9	177.3	172.3	168.6
72.5°	141.6	144.6	147.7	142.8	139.6
75°	113.6	116.2	118.7	114.4	111.9
77.5°	86.8	89.0	90.8	88.0	85.6
80°	61.9	63.6	64.6	63.5	61.2
82.5°	39.8	41.0	41.6	41.5	40.0
85°	21.6	22.0	23.1	23.3	22.5
87.5°	8.4	8.9	9.2	9.9	9.1
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)