

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: P488671

Luminaire Tested: **CLM-12-4-INS-A19156-LD4-1STD-40-120-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: P488671
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-LD4-1STD-40-120-EDD
Description: 1X4 CLM LED LUMINAIRE WITH A19156 LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

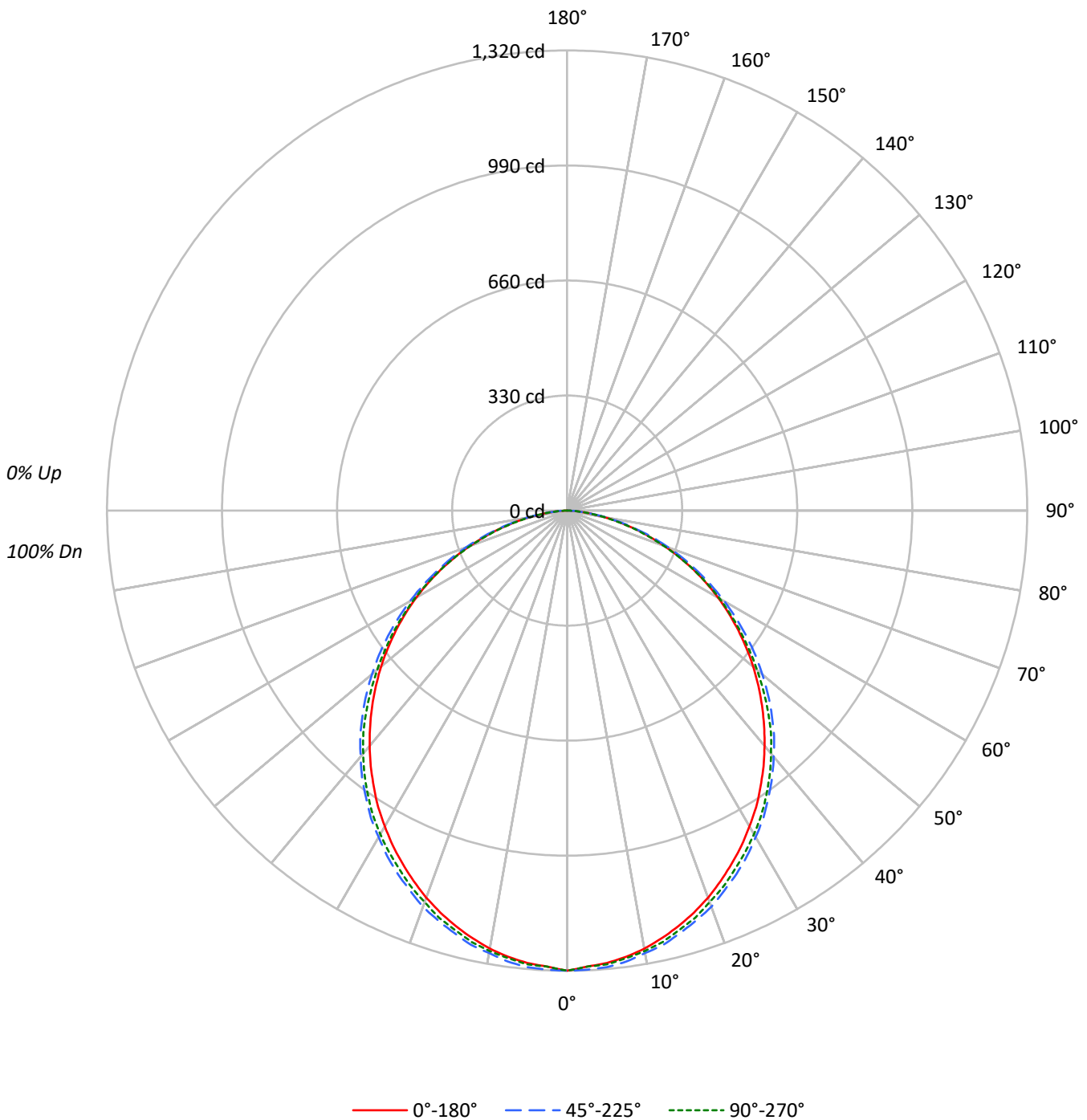
Lumens per Lamp: N/A
Luminaire Lumens: 3469.7 lumens
Efficiency: N/A
Efficacy: 104.2 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.21 / 1.34
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 33.3
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°	3552	3552	3552
5°	3519	3552	3530
10°	3486	3522	3505
15°	3438	3494	3469
20°	3384	3464	3423
25°	3318	3414	3375
30°	3251	3361	3330
35°	3178	3304	3273
40°	3095	3238	3197
45°	3008	3160	3100
50°	2918	3059	2979
55°	2812	2943	2853
60°	2692	2804	2717
65°	2537	2634	2539
70°	2334	2429	2308
75°	2056	2149	2024
80°	1671	1743	1652
85°	1164	1241	1210



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	124.3	3.6
10°-20°	352.2	10.2
20°-30°	525.3	15.1
30°-40°	622.5	17.9
40°-50°	629.9	18.2
50°-60°	550.1	15.9
60°-70°	402.0	11.6
70°-80°	213.9	6.2
80°-90°	49.5	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°	1001.8	28.9
0°-40°	1624.3	46.8
0°-60°	2804.4	80.8
0°-90°	3469.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3469.7	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1320	1320	1320	1320	1320	
5°	1303	1305	1315	1318	1307	124
15°	1234	1242	1254	1262	1245	348
25°	1118	1131	1150	1154	1137	515
35°	967	982	1006	1013	996	605
45°	790	804	830	831	815	610
55°	599	612	627	618	608	536
65°	398	407	414	406	399	394
75°	198	202	207	199	195	210
85°	38	38	40	41	39	48
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1319.8	1319.8	1319.8	1319.8	1319.8
2.5°	1309.4	1313.7	1318.1	1320.0	1309.3
5°	1302.6	1305.0	1314.8	1317.8	1306.7
7.5°	1291.3	1295.0	1304.5	1305.9	1295.1
10°	1275.9	1282.5	1288.8	1295.7	1282.6
12.5°	1256.2	1265.2	1275.9	1277.1	1267.2
15°	1234.1	1242.3	1254.0	1261.6	1245.2
17.5°	1209.3	1217.3	1232.4	1233.8	1223.9
20°	1181.7	1191.6	1209.7	1212.9	1195.2
22.5°	1150.3	1163.7	1178.8	1181.8	1168.8
25°	1117.5	1131.2	1149.9	1154.2	1136.7
27.5°	1083.1	1096.3	1117.3	1120.4	1105.7
30°	1046.3	1058.6	1081.7	1086.8	1071.8
32.5°	1008.9	1021.2	1046.8	1051.1	1036.5
35°	967.3	982.5	1005.7	1012.7	996.3
37.5°	925.0	939.7	966.1	972.4	954.8
40°	881.1	895.7	921.7	926.9	910.0
42.5°	836.3	850.9	878.6	879.5	865.4
45°	790.5	804.5	830.4	831.1	814.7
47.5°	744.0	758.2	781.3	778.7	763.3
50°	697.0	710.5	730.7	725.5	711.6
52.5°	648.3	661.4	680.5	672.0	658.9
55°	599.4	611.5	627.4	618.3	608.2
57.5°	550.0	562.2	574.5	565.3	556.5
60°	500.2	511.0	521.0	511.6	504.9
62.5°	449.6	458.8	467.5	458.6	452.2
65°	398.5	406.6	413.7	405.5	398.8
67.5°	347.6	354.5	361.1	352.6	345.5
70°	296.7	302.6	308.7	299.9	293.4
72.5°	246.5	251.8	257.1	248.6	243.0
75°	197.7	202.3	206.7	199.1	194.7
77.5°	151.1	155.0	158.0	153.2	148.9
80°	107.8	110.7	112.5	110.6	106.6
82.5°	69.3	71.4	72.3	72.2	69.6
85°	37.7	38.4	40.2	40.6	39.2
87.5°	14.6	15.5	16.0	17.2	15.8
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)