

Scaled data based on original data using
LM-79-2019 Approved Method: Electrical and Photometric Measurements of Solid-
State Lighting Products

Test Report Prepared for
Cooper Lighting Solutions

Brand: FAIL-SAFE

Report Number: P558844

Luminaire Tested: FSR-12-1-LD4-1STD-35-UNV-80-96-EDD-90

Issue Date: 7/20/2021

Test Information

Test Method: LM-79-2019
Report Number: P558844
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2102-135-5)
Test Lab: INNOVATION CENTER
Issue Date: 7/20/2021
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: FAIL-SAFE
Catalog Number: FSR-12-1-LD4-1STD-35-UNV-80-96-EDD-90
Description: 1X1 FSR TROFFER WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND .250 CLEAR TEMPERED G ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 3500K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 653.0 lumens
Efficiency: N/A
Efficacy: 78.7 lumens/watt
Spacing Criteria (0/90/45): 1.1 / 1 / 1.15
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
CIE Type: Direct

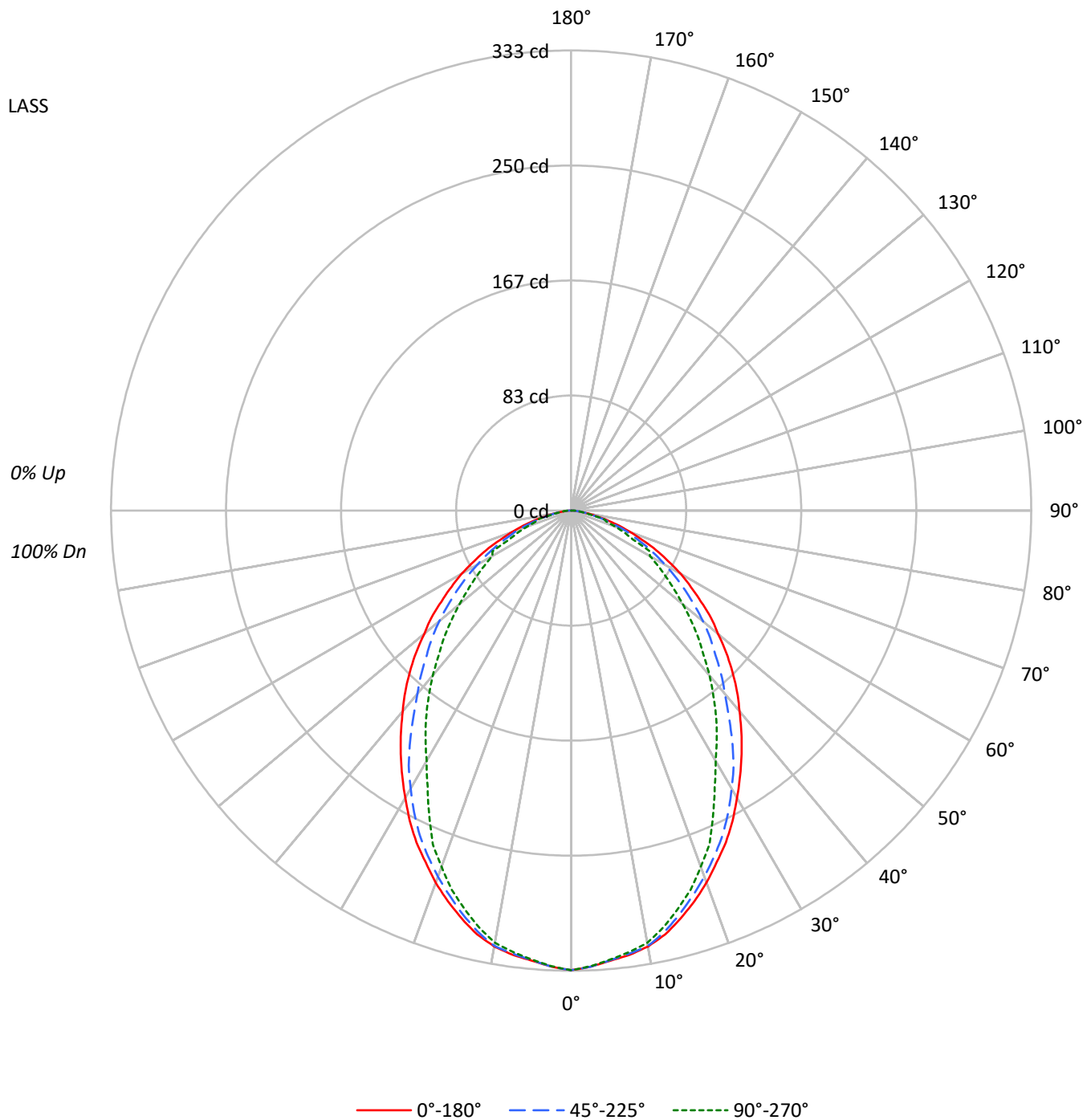
Input Watts (W): 8.3
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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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	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	110	106	102	99	108	104	100	97	100	97	94	96	94	91	92	90	89	87																												
2	101	94	88	83	99	92	87	82	89	84	80	86	82	78	83	79	77	75																												
3	93	84	77	71	91	82	76	70	79	74	69	77	72	68	74	70	67	65																												
4	86	75	67	61	84	74	66	61	72	65	60	69	64	59	67	62	58	56																												
5	80	68	60	54	78	67	59	53	65	58	53	63	57	52	61	56	52	50																												
6	74	62	53	48	72	61	53	47	59	52	47	57	51	47	56	50	46	44																												
7	69	56	48	43	67	56	48	42	54	47	42	53	46	42	51	46	42	40																												
8	65	52	44	38	63	51	44	38	50	43	38	49	42	38	48	42	38	36																												
9	61	48	40	35	59	47	40	35	46	39	35	45	39	34	44	38	34	33																												
10	57	44	37	32	56	44	37	32	43	36	32	42	36	32	41	36	32	30																												

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	3580	3580	3580
5°	3532	3528	3524
10°	3501	3496	3471
15°	3407	3372	3325
20°	3282	3229	3141
25°	3146	3078	2886
30°	2983	2887	2600
35°	2825	2667	2405
40°	2664	2431	2188
45°	2512	2248	1979
50°	2324	2087	1765
55°	2151	1892	1580
60°	1970	1688	1417
65°	1734	1480	1253
70°	1429	1293	1064
75°	1135	990	1040
80°	762	713	669
85°	469	568	667

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 2512 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	31.0	4.7
10°-20°	85.0	13.0
20°-30°	117.6	18.0
30°-40°	125.4	19.2
40°-50°	114.4	17.5
50°-60°	89.6	13.7
60°-70°	58.4	8.9
70°-80°	25.9	4.0
80°-90°	5.6	0.9
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°	233.6	35.8
0°-40°	359.0	55.0
0°-60°	563.1	86.2
0°-90°	653.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	653.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	333	333	333	333	333	
5°	327	326	326	326	326	31
15°	306	306	303	300	298	86
25°	265	263	259	250	243	122
35°	215	213	203	188	183	134
45°	165	162	148	135	130	127
55°	115	111	101	89	84	103
65°	68	64	58	59	49	67
75°	27	25	24	23	25	29
85°	4	4	5	5	5	5
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	332.6	332.6	332.6	332.6	332.6
2.5°	330.3	330.3	330.3	329.9	329.9
5°	326.9	326.5	326.5	326.1	326.1
7.5°	324.2	323.8	323.4	323.0	322.2
10°	320.3	320.3	319.9	318.0	317.6
12.5°	314.2	313.8	312.2	309.6	308.8
15°	305.7	305.7	302.6	299.6	298.4
17.5°	296.5	296.1	292.3	289.2	287.6
20°	286.5	285.7	281.9	276.9	274.2
22.5°	275.3	275.3	270.7	264.2	261.5
25°	264.9	263.4	259.2	250.0	243.0
27.5°	253.0	250.7	246.1	233.0	225.0
30°	240.0	238.8	232.3	215.3	209.2
32.5°	227.6	225.7	218.8	201.1	196.1
35°	215.0	213.4	203.0	187.7	183.0
37.5°	202.3	200.3	187.3	175.0	169.2
40°	189.6	187.3	173.0	161.9	155.7
42.5°	177.7	174.6	160.7	148.8	141.9
45°	165.0	161.5	147.7	135.4	130.0
47.5°	152.3	149.2	136.5	123.8	117.7
50°	138.8	136.1	124.6	111.9	105.4
52.5°	127.7	123.4	112.3	99.6	94.2
55°	114.6	111.1	100.8	88.8	84.2
57.5°	102.7	99.2	89.6	78.4	74.6
60°	91.5	86.5	78.4	68.8	65.8
62.5°	79.2	75.4	68.4	60.4	64.2
65°	68.1	64.2	58.1	59.2	49.2
67.5°	55.8	53.8	48.5	43.1	41.5
70°	45.4	43.1	41.1	35.4	33.8
72.5°	36.1	33.8	31.1	28.1	26.9
75°	27.3	25.4	23.8	22.7	25.0
77.5°	18.8	18.1	16.9	15.8	15.4
80°	12.3	11.9	11.5	11.2	10.8
82.5°	7.3	7.3	7.3	7.3	7.3
85°	3.8	4.2	4.6	5.0	5.4
87.5°	2.3	2.3	2.7	3.1	3.5
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)