

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: P559856

Luminaire Tested: FSR-12-2-LD4-1LO-40-UNV-80-84-EDD-90

Issue Date: 7/20/2021

Test Information

Test Method: LM-79-2019
Report Number: P559856
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-12-2-LD4-1LO-40-UNV-80-84-EDD-90
Description: 1X2 FSR TROFFER WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND .125 CLEAR PC ENVIRON
SIDE LENSES WITH, 90 CRI AND 4000K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 967.0 lumens
Efficiency: N/A
Efficacy: 82.6 lumens/watt
Spacing Criteria (0/90/45): 1.1 / 1 / 1.15
Luminous Opening: Rectangular (W 1' x L: 2' x H: 0')
CIE Type: Direct

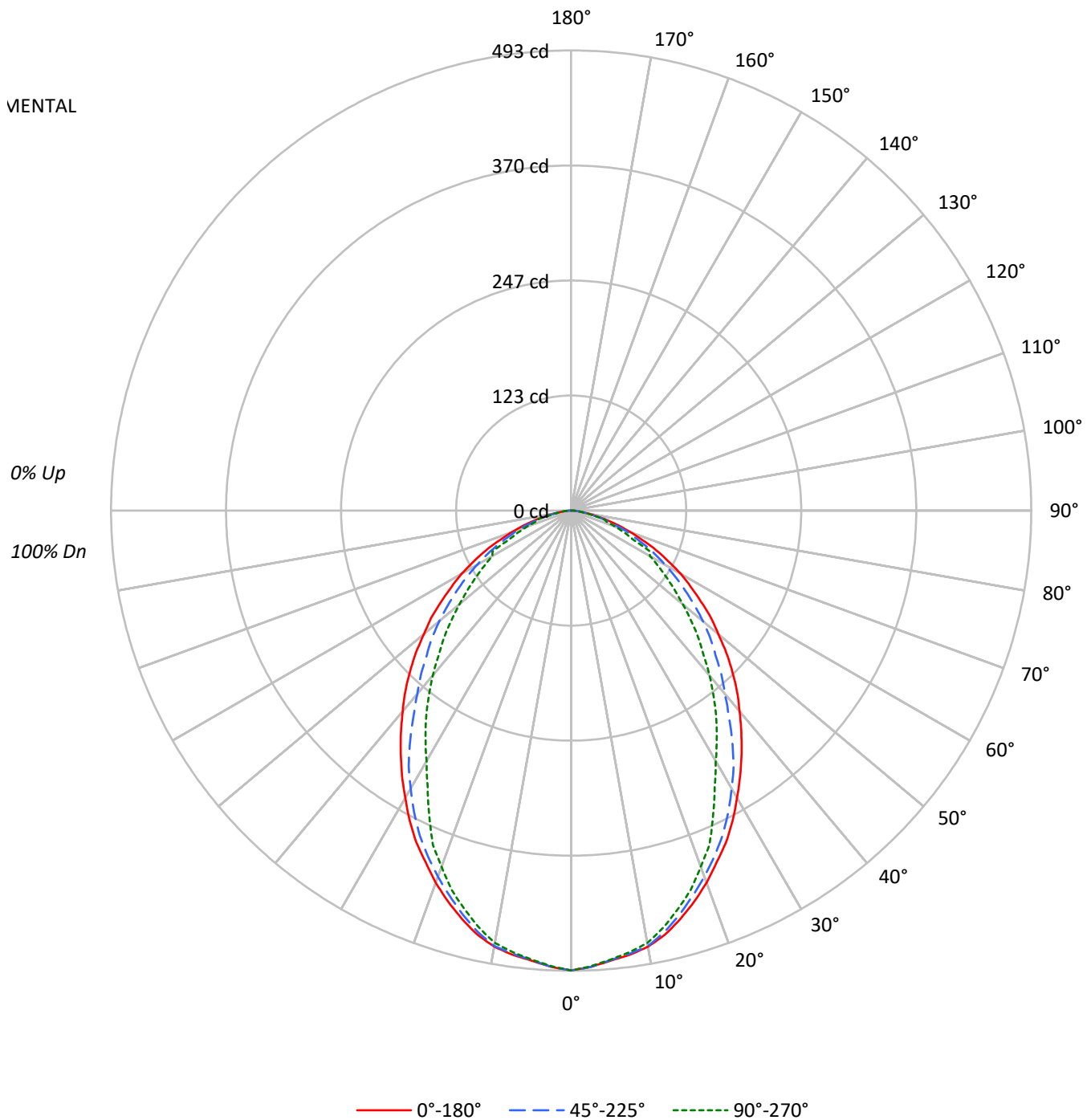
Input Watts (W): 11.7
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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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									100																			
1	110	106	102	99	108	104	100	97	100	97	94	96	94	91	92	90	89	87									87																			
2	101	94	88	83	99	92	87	82	89	84	80	86	82	78	83	79	77	75									75																			
3	93	84	77	71	91	82	76	70	79	74	69	77	72	68	74	70	67	65									65																			
4	86	75	67	61	84	74	66	61	72	65	60	69	64	59	67	62	58	56									56																			
5	80	68	60	54	78	67	59	53	65	58	53	63	57	52	61	56	52	50									50																			
6	74	62	53	48	72	61	53	47	59	52	47	57	51	47	56	50	46	44									44																			
7	69	56	48	43	67	56	48	42	54	47	42	53	46	42	51	46	42	40									40																			
8	65	52	44	38	63	51	44	38	50	43	38	49	42	38	48	42	38	36									36																			
9	61	48	40	35	59	47	40	35	46	39	35	45	39	34	44	38	34	33									33																			
10	57	44	37	32	56	44	37	32	43	36	32	42	36	32	41	36	32	30									30																			

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	2651	2651	2651
5°	2615	2612	2609
10°	2593	2589	2571
15°	2522	2497	2462
20°	2430	2391	2325
25°	2330	2279	2137
30°	2208	2137	1925
35°	2091	1976	1781
40°	1972	1801	1620
45°	1859	1665	1465
50°	1721	1545	1306
55°	1592	1400	1170
60°	1459	1251	1048
65°	1284	1095	928
70°	1057	958	788
75°	840	734	769
80°	564	530	493
85°	352	420	494

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 1859 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	45.9	4.7
10°-20°	125.8	13.0
20°-30°	174.2	18.0
30°-40°	185.8	19.2
40°-50°	169.5	17.5
50°-60°	132.8	13.7
60°-70°	86.5	8.9
70°-80°	38.3	4.0
80°-90°	8.2	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°	345.9	35.8
0°-40°	531.7	55.0
0°-60°	833.9	86.2
0°-90°	967.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	967.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	493	493	493	493	493	
5°	484	484	484	483	483	46
15°	453	453	448	444	442	127
25°	392	390	384	370	360	180
35°	318	316	301	278	271	199
45°	244	239	219	200	192	188
55°	170	165	149	132	125	152
65°	101	95	86	88	73	99
75°	40	38	35	34	37	43
85°	6	6	7	7	8	8
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	492.6	492.6	492.6	492.6	492.6
2.5°	489.2	489.2	489.2	488.6	488.6
5°	484.0	483.5	483.5	482.9	482.9
7.5°	480.0	479.5	478.9	478.3	477.2
10°	474.4	474.4	473.8	470.9	470.4
12.5°	465.2	464.7	462.4	458.4	457.3
15°	452.7	452.7	448.2	443.6	441.9
17.5°	439.0	438.5	432.8	428.2	426.0
20°	424.2	423.1	417.4	410.0	406.0
22.5°	407.7	407.7	400.9	391.2	387.2
25°	392.4	390.1	383.8	370.1	359.9
27.5°	374.7	371.3	364.4	345.1	333.1
30°	355.3	353.6	343.9	318.9	309.8
32.5°	337.1	334.3	324.0	297.8	290.4
35°	318.3	316.0	300.7	277.9	271.1
37.5°	299.5	296.7	277.3	259.1	250.6
40°	280.7	277.3	256.3	239.7	230.6
42.5°	263.1	258.5	238.0	220.4	210.1
45°	244.3	239.2	218.7	200.4	192.5
47.5°	225.5	220.9	202.2	183.4	174.3
50°	205.6	201.6	184.5	165.7	156.0
52.5°	189.1	182.8	166.3	147.5	139.5
55°	169.7	164.6	149.2	131.5	124.7
57.5°	152.0	146.9	132.7	116.2	110.5
60°	135.5	128.1	116.2	101.9	97.4
62.5°	117.3	111.6	101.4	89.4	95.1
65°	100.8	95.1	86.0	87.7	72.9
67.5°	82.6	79.7	71.8	63.8	61.5
70°	67.2	63.8	60.9	52.4	50.1
72.5°	53.5	50.1	46.1	41.6	39.9
75°	40.4	37.6	35.3	33.6	37.0
77.5°	27.9	26.8	25.1	23.3	22.8
80°	18.2	17.7	17.1	16.5	15.9
82.5°	10.8	10.8	10.8	10.8	10.8
85°	5.7	6.3	6.8	7.4	8.0
87.5°	3.4	3.4	4.0	4.6	5.1
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)