

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: P559923

Luminaire Tested: FSR-12-2-LD4-1LO-50-UNV-80-85-EDD

Issue Date: 7/20/2021

Test Information

Test Method: LM-79-2019
Report Number: P559923
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-50-UNV-80-85-EDD
Description: 1X2 FSR TROFFER WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND .187 CLEAR PC ENVIRONM
SIDE LENSES WITH, 80 CRI AND 5000K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1147.0 lumens
Efficiency: N/A
Efficacy: 98.0 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

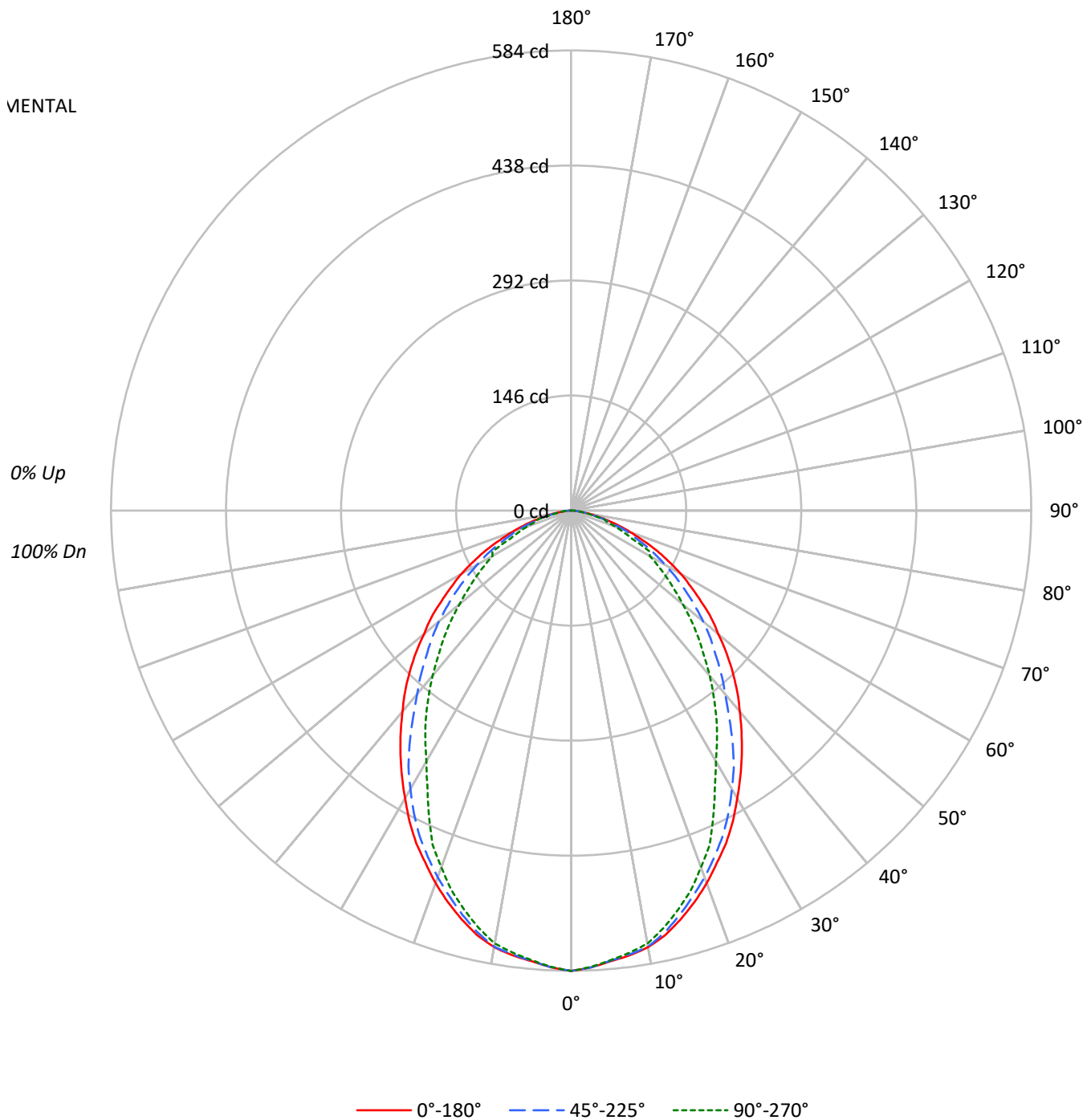
Input Watts (W): 11.7
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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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	0		
RCR																										
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100	100	100	100	100	100	100		
1	110	106	102	99	108	104	100	97	100	97	94	96	94	91	92	90	89	87	87	87	87	87	87	87		
2	101	94	88	83	99	92	87	82	89	84	80	86	82	78	83	79	77	75	75	75	75	75	75	75		
3	93	84	77	71	91	82	76	70	79	74	69	77	72	68	74	70	67	65	65	65	65	65	65	65		
4	86	75	67	61	84	74	66	61	72	65	60	69	64	59	67	62	58	56	56	56	56	56	56	56		
5	80	68	60	54	78	67	59	53	65	58	53	63	57	52	61	56	52	50	50	50	50	50	50	50		
6	74	62	53	48	72	61	53	47	59	52	47	57	51	47	56	50	46	44	44	44	44	44	44	44		
7	69	56	48	43	67	56	48	42	54	47	42	53	46	42	51	46	42	40	40	40	40	40	40	40		
8	65	52	44	38	63	51	44	38	50	43	38	49	42	38	48	42	38	36	36	36	36	36	36	36		
9	61	48	40	35	59	47	40	35	46	39	35	45	39	34	44	38	34	33	33	33	33	33	33	33		
10	57	44	37	32	56	44	37	32	43	36	32	42	36	32	41	36	32	30	30	30	30	30	30	30		

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	3145	3145	3145
5°	3102	3098	3095
10°	3075	3071	3049
15°	2992	2962	2921
20°	2882	2836	2758
25°	2764	2704	2535
30°	2619	2536	2283
35°	2481	2343	2112
40°	2340	2136	1922
45°	2206	1974	1738
50°	2041	1832	1550
55°	1889	1661	1388
60°	1731	1483	1243
65°	1523	1299	1102
70°	1254	1138	935
75°	998	871	913
80°	669	629	586
85°	420	500	587

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 2206 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	54.4	4.7
10°-20°	149.3	13.0
20°-30°	206.6	18.0
30°-40°	220.3	19.2
40°-50°	201.0	17.5
50°-60°	157.5	13.7
60°-70°	102.6	8.9
70°-80°	45.5	4.0
80°-90°	9.8	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°	410.3	35.8
0°-40°	630.6	55.0
0°-60°	989.1	86.2
0°-90°	1147.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1147.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	584	584	584	584	584	
5°	574	574	574	573	573	54
15°	537	537	532	526	524	151
25°	465	463	455	439	427	214
35°	378	375	357	330	322	236
45°	290	284	259	238	228	223
55°	201	195	177	156	148	181
65°	120	113	102	104	86	118
75°	48	45	42	40	44	51
85°	7	7	8	9	10	9
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	584.3	584.3	584.3	584.3	584.3
2.5°	580.2	580.2	580.2	579.5	579.5
5°	574.1	573.5	573.5	572.8	572.8
7.5°	569.4	568.7	568.1	567.4	566.0
10°	562.7	562.7	562.0	558.6	557.9
12.5°	551.8	551.2	548.5	543.7	542.4
15°	537.0	537.0	531.6	526.2	524.2
17.5°	520.8	520.1	513.3	507.9	505.2
20°	503.2	501.9	495.1	486.3	481.6
22.5°	483.6	483.6	475.5	464.0	459.3
25°	465.4	462.7	455.3	439.0	426.9
27.5°	444.4	440.4	432.3	409.3	395.1
30°	421.5	419.5	408.0	378.3	367.4
32.5°	399.9	396.5	384.3	353.3	344.5
35°	377.6	374.9	356.6	329.6	321.5
37.5°	355.3	351.9	328.9	307.3	297.2
40°	333.0	328.9	304.0	284.4	273.6
42.5°	312.1	306.7	282.3	261.4	249.2
45°	289.8	283.7	259.4	237.8	228.3
47.5°	267.5	262.1	239.8	217.5	206.7
50°	243.8	239.1	218.8	196.6	185.1
52.5°	224.3	216.8	197.2	174.9	165.5
55°	201.3	195.2	177.0	156.0	147.9
57.5°	180.3	174.3	157.4	137.8	131.0
60°	160.8	152.0	137.8	120.9	115.5
62.5°	139.1	132.4	120.2	106.0	112.8
65°	119.6	112.8	102.0	104.0	86.5
67.5°	97.9	94.6	85.1	75.7	72.9
70°	79.7	75.7	72.3	62.1	59.4
72.5°	63.5	59.4	54.7	49.3	47.3
75°	48.0	44.6	41.9	39.9	43.9
77.5°	33.1	31.7	29.7	27.7	27.0
80°	21.6	20.9	20.3	19.6	18.9
82.5°	12.8	12.8	12.8	12.8	12.8
85°	6.8	7.4	8.1	8.8	9.5
87.5°	4.1	4.1	4.7	5.4	6.1
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)