

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: P559538

Luminaire Tested: FSR-12-1-LD4-2STD-50-UNV-80-85-EDD-90

Issue Date: 7/20/2021

Test Information

Test Method: LM-79-2019
Report Number: P559538
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-LD4-2STD-50-UNV-80-85-EDD-90
Description: 1X1 FSR TROFFER WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND .187 CLEAR PC ENVIRONM
SIDE LENSES WITH, 90 CRI AND 5000K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1378.0 lumens
Efficiency: N/A
Efficacy: 83.0 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

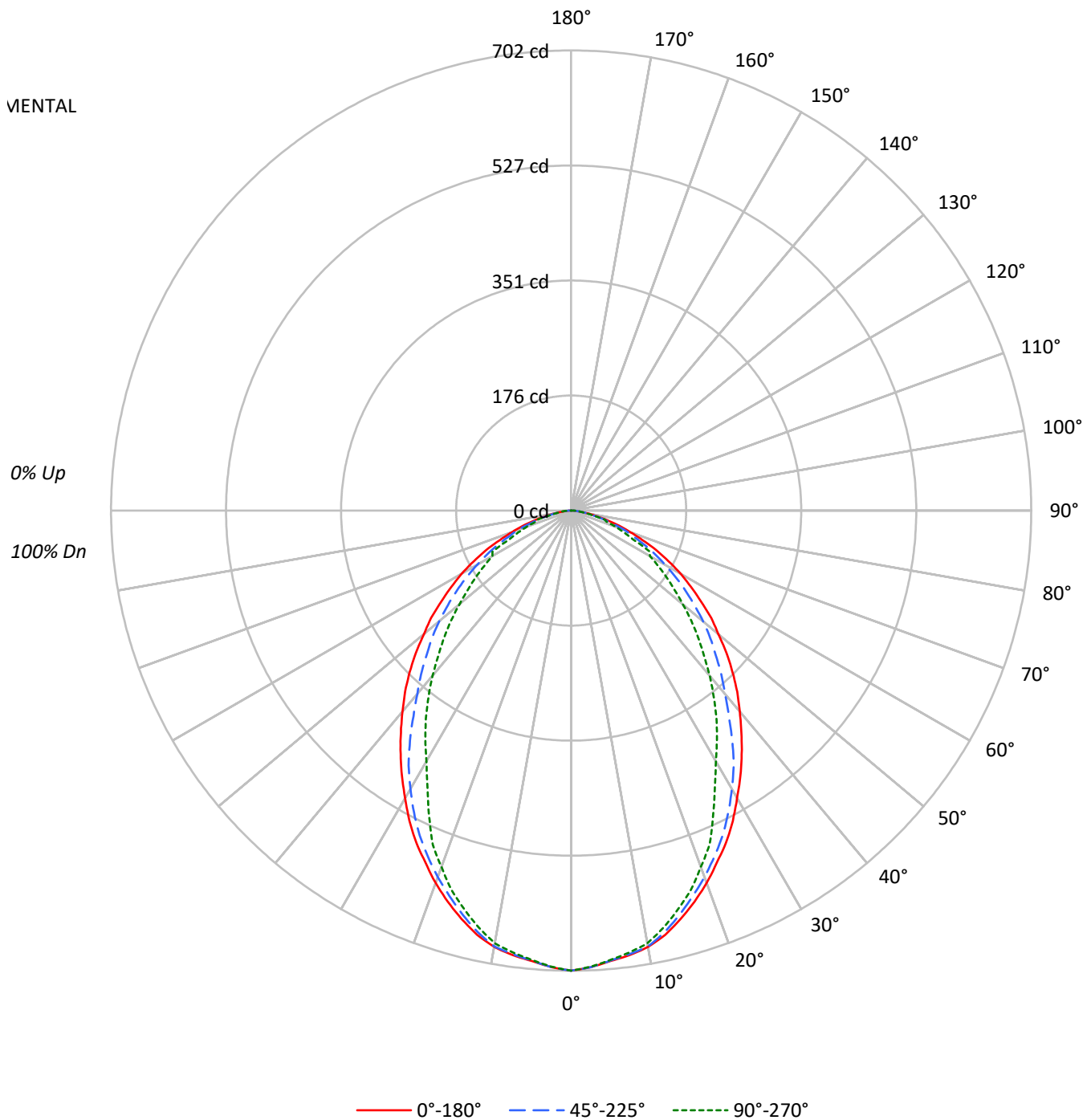
Input Watts (W): 16.6
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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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°	7555	7555	7555
5°	7453	7445	7435
10°	7389	7380	7326
15°	7189	7116	7017
20°	6926	6813	6628
25°	6640	6495	6092
30°	6294	6092	5486
35°	5960	5631	5076
40°	5622	5132	4619
45°	5299	4743	4176
50°	4905	4402	3723
55°	4538	3990	3335
60°	4157	3563	2988
65°	3657	3120	2646
70°	3015	2732	2247
75°	2396	2092	2192
80°	1612	1506	1407
85°	1000	1198	1408

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 5299 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	65.3	4.7
10°-20°	179.3	13.0
20°-30°	248.3	18.0
30°-40°	264.7	19.2
40°-50°	241.5	17.5
50°-60°	189.2	13.7
60°-70°	123.3	8.9
70°-80°	54.6	4.0
80°-90°	11.7	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°	492.9	35.8
0°-40°	757.6	55.0
0°-60°	1188.3	86.2
0°-90°	1378.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1378.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	702	702	702	702	702	
5°	690	689	689	688	688	65
15°	645	645	639	632	630	181
25°	559	556	547	528	513	257
35°	454	450	428	396	386	284
45°	348	341	312	286	274	268
55°	242	234	213	188	178	217
65°	144	136	122	125	104	142
75°	58	54	50	48	53	62
85°	8	9	10	10	11	11
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	701.9	701.9	701.9	701.9	701.9
2.5°	697.1	697.1	697.1	696.3	696.3
5°	689.8	689.0	689.0	688.1	688.1
7.5°	684.1	683.3	682.5	681.6	680.0
10°	676.0	676.0	675.2	671.1	670.3
12.5°	663.0	662.2	658.9	653.2	651.6
15°	645.1	645.1	638.6	632.1	629.7
17.5°	625.7	624.8	616.7	610.2	607.0
20°	604.6	602.9	594.8	584.3	578.6
22.5°	581.0	581.0	571.3	557.5	551.8
25°	559.1	555.9	546.9	527.5	512.9
27.5°	534.0	529.1	519.4	491.8	474.7
30°	506.4	503.9	490.1	454.4	441.4
32.5°	480.4	476.3	461.7	424.4	413.9
35°	453.6	450.4	428.5	396.0	386.3
37.5°	426.8	422.8	395.2	369.2	357.1
40°	400.1	395.2	365.2	341.6	328.7
42.5°	374.9	368.4	339.2	314.0	299.4
45°	348.1	340.8	311.6	285.6	274.3
47.5°	321.3	314.9	288.1	261.3	248.3
50°	292.9	287.3	262.9	236.1	222.3
52.5°	269.4	260.5	237.0	210.2	198.8
55°	241.8	234.5	212.6	187.5	177.7
57.5°	216.7	209.4	189.1	165.5	157.4
60°	193.1	182.6	165.5	145.3	138.8
62.5°	167.2	159.1	144.4	127.4	135.5
65°	143.6	135.5	122.5	125.0	103.9
67.5°	117.7	113.6	102.2	90.9	87.6
70°	95.8	90.9	86.8	74.7	71.4
72.5°	76.3	71.4	65.7	59.2	56.8
75°	57.6	53.6	50.3	47.9	52.7
77.5°	39.8	38.1	35.7	33.3	32.5
80°	26.0	25.2	24.3	23.5	22.7
82.5°	15.4	15.4	15.4	15.4	15.4
85°	8.1	8.9	9.7	10.5	11.4
87.5°	4.9	4.9	5.7	6.5	7.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)