

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: P559414

Luminaire Tested: FSR-12-1-LD4-2STD-35-UNV-80-87-EDD-90

Issue Date: 7/20/2021

Test Information

Test Method: LM-79-2019
Report Number: P559414
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-35-UNV-80-87-EDD-90
Description: 1X1 FSR TROFFER WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND .375 CLEAR PC ENVIRON
SIDE LENSES WITH, 90 CRI AND 3500K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1235.0 lumens
Efficiency: N/A
Efficacy: 74.4 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

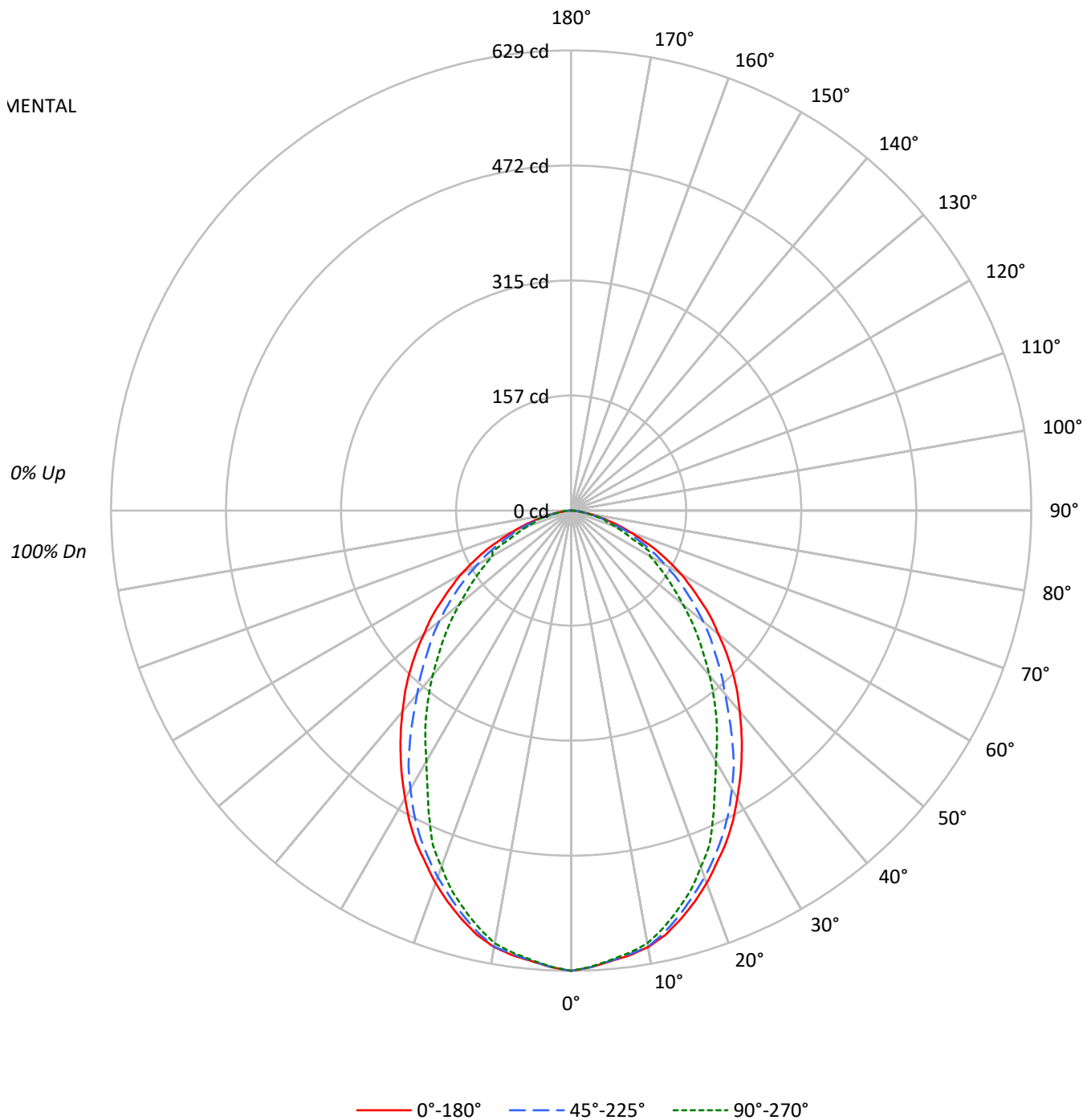
Input Watts (W): 16.6
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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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°	6772	6772	6772
5°	6680	6672	6663
10°	6621	6614	6566
15°	6443	6379	6289
20°	6206	6107	5939
25°	5951	5822	5459
30°	5640	5460	4917
35°	5342	5046	4549
40°	5037	4599	4138
45°	4749	4252	3742
50°	4396	3945	3337
55°	4067	3575	2989
60°	3726	3195	2678
65°	3278	2797	2371
70°	2700	2448	2014
75°	2146	1876	1967
80°	1444	1351	1265
85°	902	1074	1260

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 4749 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	58.6	4.7
10°-20°	160.7	13.0
20°-30°	222.5	18.0
30°-40°	237.2	19.2
40°-50°	216.4	17.5
50°-60°	169.6	13.7
60°-70°	110.5	8.9
70°-80°	49.0	4.0
80°-90°	10.5	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°	441.8	35.8
0°-40°	679.0	55.0
0°-60°	1065.0	86.2
0°-90°	1235.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1235.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	629	629	629	629	629	
5°	618	618	618	617	617	59
15°	578	578	572	566	564	163
25°	501	498	490	473	460	230
35°	406	404	384	355	346	254
45°	312	306	279	256	246	240
55°	217	210	190	168	159	194
65°	129	122	110	112	93	127
75°	52	48	45	43	47	55
85°	7	8	9	10	10	10
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	629.1	629.1	629.1	629.1	629.1
2.5°	624.7	624.7	624.7	624.0	624.0
5°	618.2	617.5	617.5	616.7	616.7
7.5°	613.1	612.4	611.6	610.9	609.5
10°	605.8	605.8	605.1	601.5	600.7
12.5°	594.2	593.5	590.5	585.5	584.0
15°	578.2	578.2	572.4	566.5	564.4
17.5°	560.7	560.0	552.7	546.9	544.0
20°	541.8	540.4	533.1	523.6	518.5
22.5°	520.7	520.7	512.0	499.6	494.5
25°	501.1	498.2	490.2	472.7	459.6
27.5°	478.5	474.2	465.5	440.7	425.5
30°	453.8	451.6	439.3	407.3	395.6
32.5°	430.5	426.9	413.8	380.4	370.9
35°	406.5	403.6	384.0	354.9	346.2
37.5°	382.5	378.9	354.2	330.9	320.0
40°	358.5	354.2	327.3	306.2	294.5
42.5°	336.0	330.2	304.0	281.5	268.4
45°	312.0	305.5	279.3	256.0	245.8
47.5°	288.0	282.2	258.2	234.2	222.5
50°	262.5	257.5	235.6	211.6	199.3
52.5°	241.5	233.5	212.4	188.4	178.2
55°	216.7	210.2	190.5	168.0	159.3
57.5°	194.2	187.6	169.5	148.4	141.1
60°	173.1	163.6	148.4	130.2	124.4
62.5°	149.8	142.5	129.5	114.2	121.5
65°	128.7	121.5	109.8	112.0	93.1
67.5°	105.5	101.8	91.6	81.5	78.5
70°	85.8	81.5	77.8	66.9	64.0
72.5°	68.4	64.0	58.9	53.1	50.9
75°	51.6	48.0	45.1	42.9	47.3
77.5°	35.6	34.2	32.0	29.8	29.1
80°	23.3	22.5	21.8	21.1	20.4
82.5°	13.8	13.8	13.8	13.8	13.8
85°	7.3	8.0	8.7	9.5	10.2
87.5°	4.4	4.4	5.1	5.8	6.5
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)