

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: P559539

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

Issue Date: 7/20/2021

Test Information

Test Method: LM-79-2019
Report Number: P559539
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
Description: 1X1 FSR TROFFER WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND .187 CLEAR PC ENVIRON
SIDE LENSES WITH, 80 CRI AND 5000K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1584.0 lumens
Efficiency: N/A
Efficacy: 95.4 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

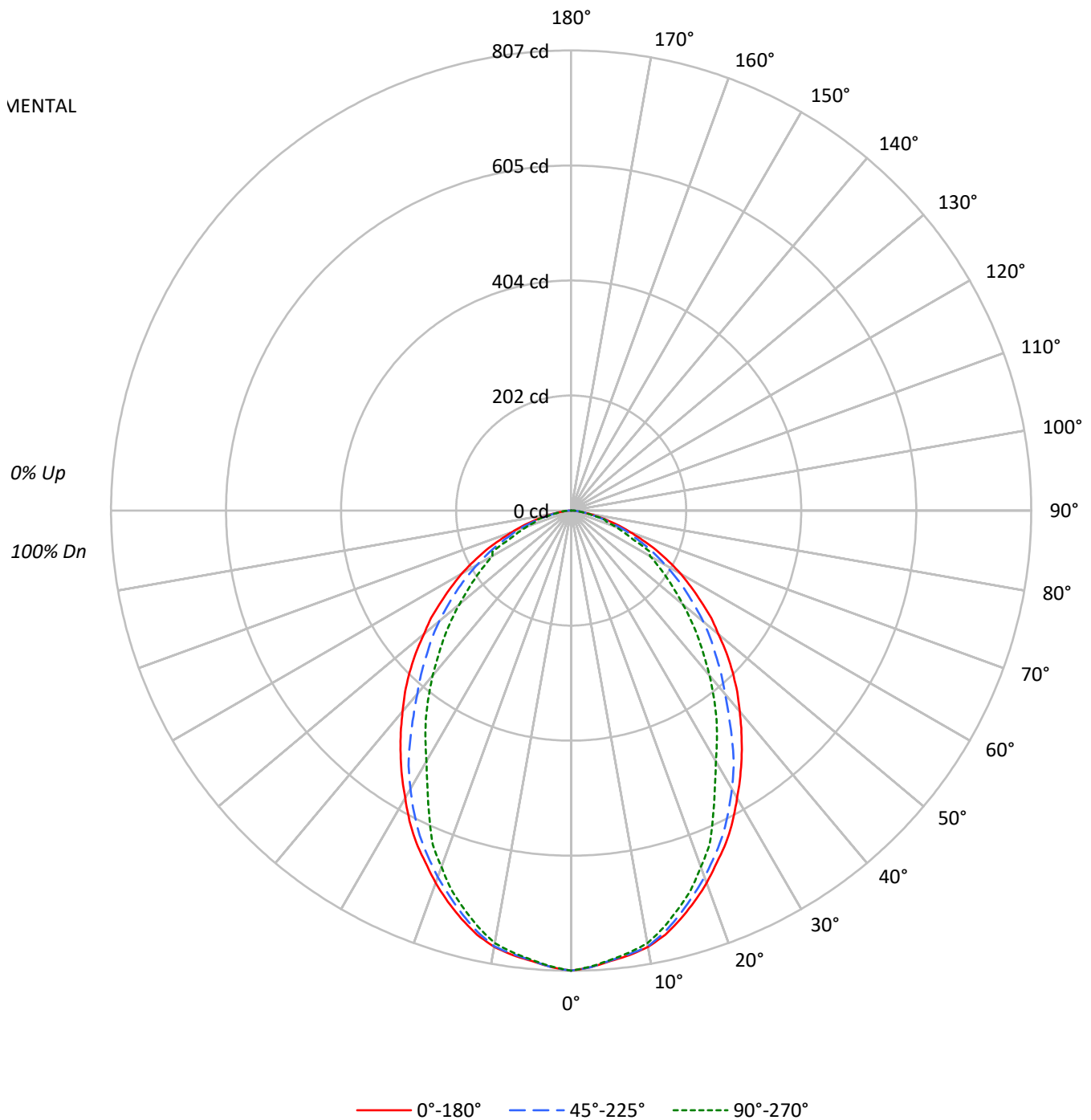
Input Watts (W): 16.6
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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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	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°	8685	8685	8685
5°	8567	8557	8547
10°	8493	8483	8422
15°	8264	8181	8066
20°	7960	7832	7619
25°	7633	7467	7001
30°	7235	7003	6307
35°	6851	6472	5834
40°	6462	5899	5309
45°	6092	5453	4800
50°	5638	5061	4280
55°	5217	4586	3834
60°	4779	4097	3434
65°	4205	3589	3041
70°	3465	3141	2584
75°	2753	2404	2520
80°	1847	1736	1618
85°	1149	1383	1618

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 6092 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	75.1	4.7
10°-20°	206.1	13.0
20°-30°	285.4	18.0
30°-40°	304.3	19.2
40°-50°	277.6	17.5
50°-60°	217.5	13.7
60°-70°	141.7	8.9
70°-80°	62.8	4.0
80°-90°	13.5	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°	566.6	35.8
0°-40°	870.9	55.0
0°-60°	1366.0	86.2
0°-90°	1584.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1584.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	807	807	807	807	807	
5°	793	792	792	791	791	75
15°	742	742	734	727	724	208
25°	643	639	629	606	590	295
35°	521	518	492	455	444	326
45°	400	392	358	328	315	308
55°	278	270	244	216	204	249
65°	165	156	141	144	119	163
75°	66	62	58	55	61	71
85°	9	10	11	12	13	13
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	806.9	806.9	806.9	806.9	806.9
2.5°	801.3	801.3	801.3	800.3	800.3
5°	792.9	791.9	791.9	791.0	791.0
7.5°	786.3	785.4	784.5	783.5	781.7
10°	777.0	777.0	776.1	771.4	770.5
12.5°	762.1	761.2	757.4	750.9	749.0
15°	741.6	741.6	734.1	726.6	723.8
17.5°	719.2	718.3	708.9	701.5	697.7
20°	694.9	693.1	683.7	671.6	665.1
22.5°	667.9	667.9	656.7	640.8	634.3
25°	642.7	639.0	628.7	606.3	589.5
27.5°	613.8	608.2	597.0	565.3	545.7
30°	582.1	579.3	563.4	522.4	507.4
32.5°	552.2	547.6	530.8	487.9	475.7
35°	521.4	517.7	492.5	455.2	444.0
37.5°	490.7	486.0	454.3	424.4	410.4
40°	459.9	454.3	419.8	392.7	377.8
42.5°	431.0	423.5	389.9	361.0	344.2
45°	400.2	391.8	358.2	328.3	315.3
47.5°	369.4	361.9	331.1	300.4	285.4
50°	336.7	330.2	302.2	271.4	255.6
52.5°	309.7	299.4	272.4	241.6	228.5
55°	278.0	269.6	244.4	215.5	204.3
57.5°	249.1	240.7	217.3	190.3	181.0
60°	222.0	209.9	190.3	167.0	159.5
62.5°	192.2	182.8	166.0	146.4	155.8
65°	165.1	155.8	140.9	143.7	119.4
67.5°	135.3	130.6	117.5	104.5	100.7
70°	110.1	104.5	99.8	85.8	82.1
72.5°	87.7	82.1	75.6	68.1	65.3
75°	66.2	61.6	57.8	55.0	60.6
77.5°	45.7	43.8	41.0	38.2	37.3
80°	29.8	28.9	28.0	27.1	26.1
82.5°	17.7	17.7	17.7	17.7	17.7
85°	9.3	10.3	11.2	12.1	13.1
87.5°	5.6	5.6	6.5	7.5	8.4
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)