

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: P558635

Luminaire Tested: FSR-12-1-LD4-1HI-50-UNV-93-94-EDD

Issue Date: 7/20/2021

Test Information

Test Method: LM-79-2019
Report Number: P558635
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-LD4-1HI-50-UNV-93-94-EDD
Description: 1X1 FSR TROFFER WITH .156 CLEAR TEMPERED GLASS FIXTURE SIDE AND .187 CLEAR TEMPER GLASS ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 5000K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 996.0 lumens
Efficiency: N/A
Efficacy: 92.2 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

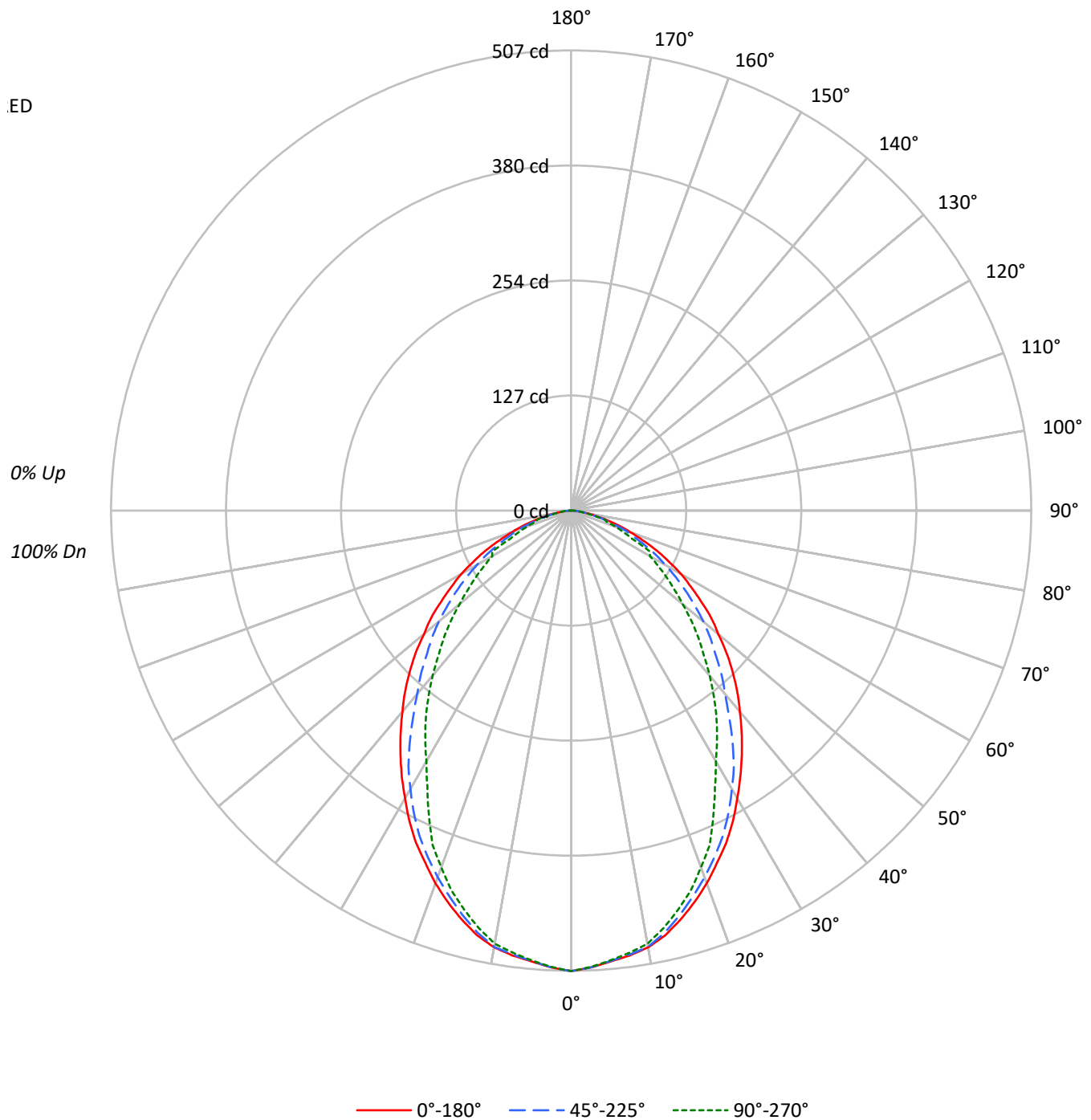
Input Watts (W): 10.8
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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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			
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°	5461	5461	5461
5°	5387	5381	5374
10°	5340	5334	5296
15°	5196	5144	5071
20°	5006	4924	4790
25°	4799	4695	4403
30°	4549	4404	3966
35°	4309	4070	3669
40°	4064	3708	3337
45°	3830	3428	3017
50°	3545	3182	2691
55°	3280	2884	2411
60°	3005	2577	2159
65°	2644	2257	1913
70°	2178	1976	1624
75°	1730	1514	1585
80°	1165	1091	1017
85°	729	865	1013

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 3830 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	47.2	4.7
10°-20°	129.6	13.0
20°-30°	179.4	18.0
30°-40°	191.3	19.2
40°-50°	174.6	17.5
50°-60°	136.8	13.7
60°-70°	89.1	8.9
70°-80°	39.5	4.0
80°-90°	8.5	0.8
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°	356.3	35.8
0°-40°	547.6	55.0
0°-60°	858.9	86.2
0°-90°	996.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	996.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	507	507	507	507	507	
5°	499	498	498	497	497	47
15°	466	466	462	457	455	131
25°	404	402	395	381	371	186
35°	328	326	310	286	279	205
45°	252	246	225	206	198	194
55°	175	170	154	136	128	157
65°	104	98	89	90	75	102
75°	42	39	36	35	38	45
85°	6	6	7	8	8	8
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	507.3	507.3	507.3	507.3	507.3
2.5°	503.8	503.8	503.8	503.2	503.2
5°	498.6	498.0	498.0	497.4	497.4
7.5°	494.4	493.9	493.3	492.7	491.5
10°	488.6	488.6	488.0	485.1	484.5
12.5°	479.2	478.6	476.3	472.2	471.0
15°	466.3	466.3	461.6	456.9	455.1
17.5°	452.2	451.6	445.8	441.1	438.7
20°	437.0	435.8	429.9	422.3	418.2
22.5°	420.0	420.0	412.9	402.9	398.8
25°	404.1	401.8	395.3	381.2	370.7
27.5°	385.9	382.4	375.4	355.4	343.1
30°	366.0	364.2	354.3	328.5	319.1
32.5°	347.2	344.3	333.7	306.8	299.1
35°	327.9	325.5	309.7	286.2	279.2
37.5°	308.5	305.6	285.6	266.9	258.1
40°	289.2	285.6	263.9	246.9	237.5
42.5°	271.0	266.3	245.2	227.0	216.4
45°	251.6	246.3	225.2	206.5	198.2
47.5°	232.3	227.6	208.2	188.9	179.5
50°	211.7	207.6	190.0	170.7	160.7
52.5°	194.7	188.3	171.3	151.9	143.7
55°	174.8	169.5	153.7	135.5	128.5
57.5°	156.6	151.3	136.7	119.7	113.8
60°	139.6	132.0	119.7	105.0	100.3
62.5°	120.8	115.0	104.4	92.1	98.0
65°	103.8	98.0	88.6	90.3	75.1
67.5°	85.0	82.1	73.9	65.7	63.3
70°	69.2	65.7	62.8	54.0	51.6
72.5°	55.1	51.6	47.5	42.8	41.1
75°	41.6	38.7	36.4	34.6	38.1
77.5°	28.7	27.6	25.8	24.0	23.5
80°	18.8	18.2	17.6	17.0	16.4
82.5°	11.1	11.1	11.1	11.1	11.1
85°	5.9	6.5	7.0	7.6	8.2
87.5°	3.5	3.5	4.1	4.7	5.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)