

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: P558955

Luminaire Tested: FSR-12-1-LD4-1STD-40-UNV-93-94-EDD

Issue Date: 7/20/2021

Test Information

Test Method: LM-79-2019
Report Number: P558955
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-LD4-1STD-40-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 4000K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 798.0 lumens
Efficiency: N/A
Efficacy: 96.1 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

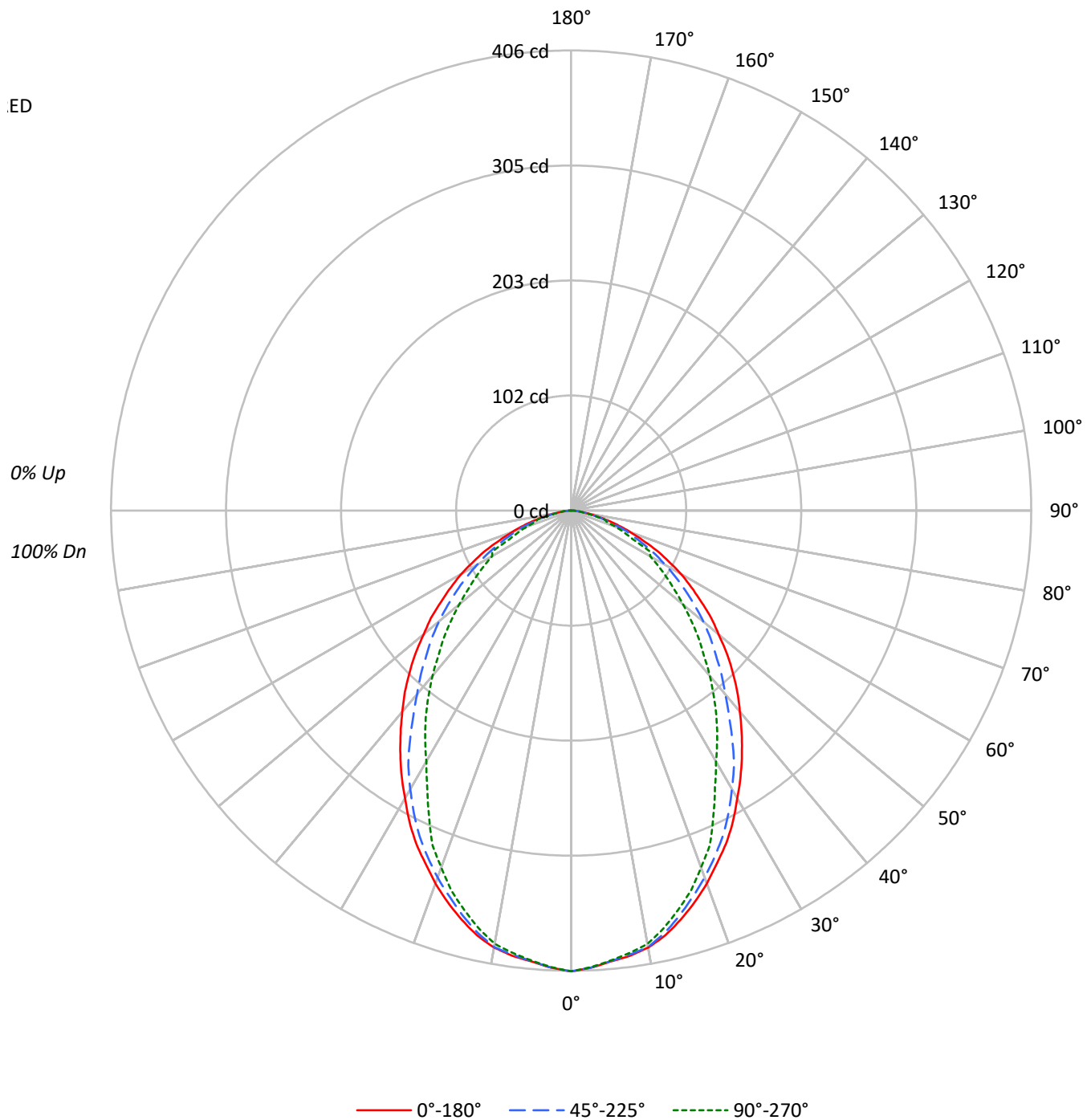
Input Watts (W): 8.3
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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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				
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°	4376	4376	4376
5°	4316	4311	4306
10°	4279	4274	4243
15°	4163	4121	4064
20°	4010	3946	3838
25°	3846	3761	3527
30°	3644	3527	3177
35°	3452	3260	2939
40°	3256	2972	2674
45°	3069	2748	2417
50°	2840	2550	2157
55°	2627	2310	1931
60°	2407	2065	1731
65°	2119	1808	1533
70°	1747	1583	1303
75°	1389	1210	1268
80°	930	874	818
85°	580	692	815

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 3069 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	37.8	4.7
10°-20°	103.8	13.0
20°-30°	143.8	18.0
30°-40°	153.3	19.2
40°-50°	139.8	17.5
50°-60°	109.6	13.7
60°-70°	71.4	8.9
70°-80°	31.6	4.0
80°-90°	6.8	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°	285.5	35.8
0°-40°	438.8	55.0
0°-60°	688.2	86.2
0°-90°	798.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	798.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	406	406	406	406	406	
5°	399	399	399	398	398	38
15°	374	374	370	366	365	105
25°	324	322	317	306	297	149
35°	263	261	248	229	224	164
45°	202	197	180	165	159	155
55°	140	136	123	109	103	126
65°	83	78	71	72	60	82
75°	33	31	29	28	30	36
85°	5	5	6	6	7	7
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	406.5	406.5	406.5	406.5	406.5
2.5°	403.7	403.7	403.7	403.2	403.2
5°	399.4	399.0	399.0	398.5	398.5
7.5°	396.2	395.7	395.2	394.7	393.8
10°	391.5	391.5	391.0	388.6	388.2
12.5°	383.9	383.5	381.6	378.3	377.4
15°	373.6	373.6	369.8	366.1	364.7
17.5°	362.3	361.8	357.1	353.4	351.5
20°	350.1	349.2	344.5	338.4	335.1
22.5°	336.5	336.5	330.8	322.8	319.6
25°	323.8	321.9	316.7	305.5	297.0
27.5°	309.2	306.4	300.8	284.8	274.9
30°	293.2	291.8	283.8	263.2	255.6
32.5°	278.2	275.8	267.4	245.8	239.7
35°	262.7	260.8	248.1	229.3	223.7
37.5°	247.2	244.8	228.9	213.8	206.8
40°	231.7	228.9	211.5	197.8	190.3
42.5°	217.1	213.3	196.4	181.9	173.4
45°	201.6	197.4	180.5	165.4	158.8
47.5°	186.1	182.3	166.8	151.3	143.8
50°	169.6	166.4	152.3	136.7	128.8
52.5°	156.0	150.8	137.2	121.7	115.1
55°	140.0	135.8	123.1	108.6	102.9
57.5°	125.5	121.2	109.5	95.9	91.2
60°	111.8	105.7	95.9	84.1	80.4
62.5°	96.8	92.1	83.6	73.8	78.5
65°	83.2	78.5	71.0	72.4	60.2
67.5°	68.1	65.8	59.2	52.6	50.8
70°	55.5	52.6	50.3	43.2	41.4
72.5°	44.2	41.4	38.1	34.3	32.9
75°	33.4	31.0	29.1	27.7	30.5
77.5°	23.0	22.1	20.7	19.3	18.8
80°	15.0	14.6	14.1	13.6	13.2
82.5°	8.9	8.9	8.9	8.9	8.9
85°	4.7	5.2	5.6	6.1	6.6
87.5°	2.8	2.8	3.3	3.8	4.2
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)