

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: P558633

Luminaire Tested: FSR-12-1-LD4-1HI-50-UNV-93-88-EDD

Issue Date: 7/20/2021

Test Information

Test Method: LM-79-2019
Report Number: P558633
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-93-88-EDD
Description: 1X1 FSR TROFFER WITH .156 CLEAR TEMPERED GLASS FIXTURE SIDE AND .500 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 5000K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 839.0 lumens
Efficiency: N/A
Efficacy: 77.7 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

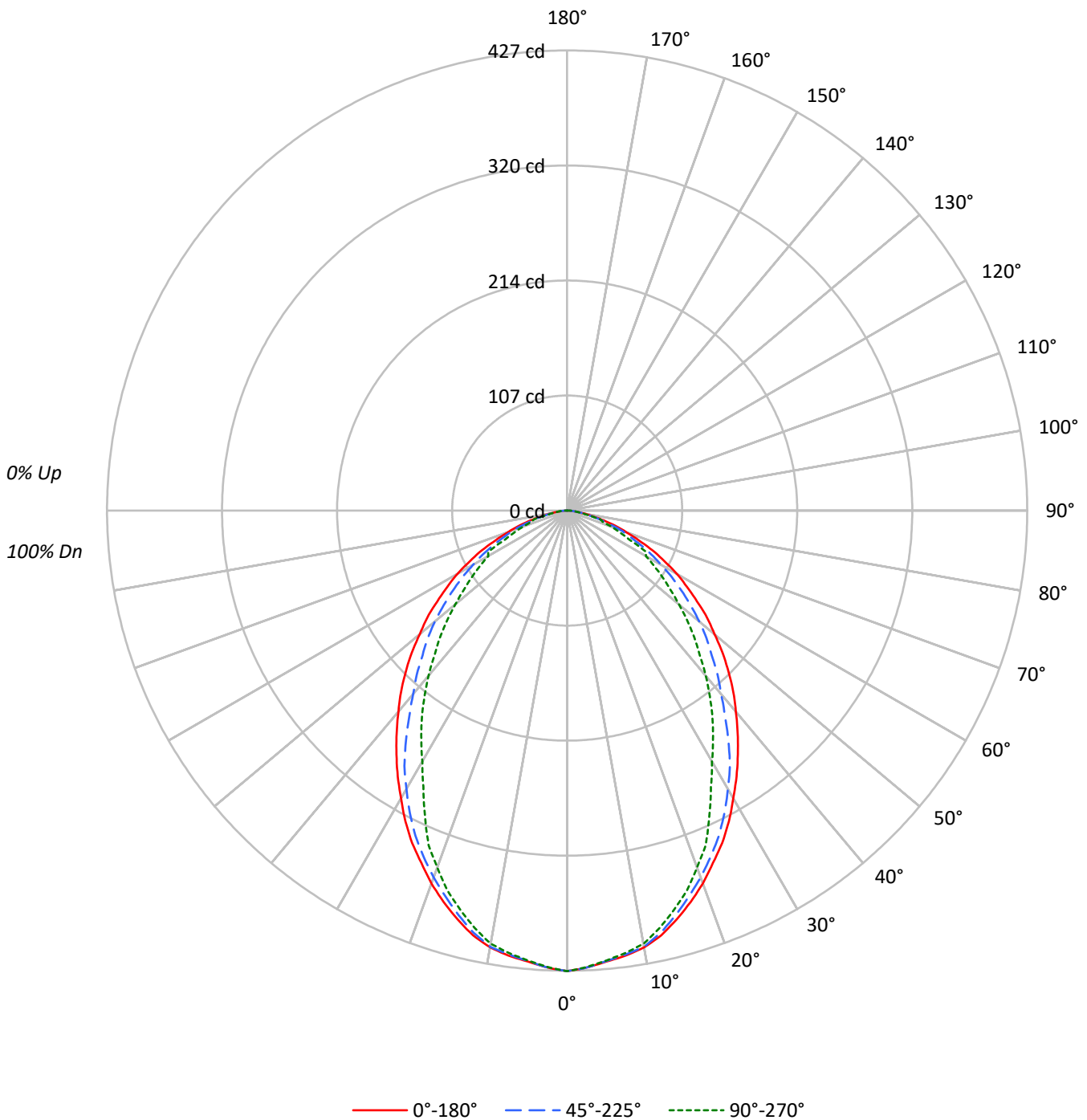
Input Watts (W): 10.8
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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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°	4600	4600	4600
5°	4538	4533	4527
10°	4499	4493	4461
15°	4377	4333	4272
20°	4216	4149	4035
25°	4043	3955	3709
30°	3832	3709	3341
35°	3629	3428	3091
40°	3423	3124	2812
45°	3227	2888	2542
50°	2987	2681	2267
55°	2762	2428	2031
60°	2532	2170	1819
65°	2229	1900	1610
70°	1835	1665	1369
75°	1460	1273	1335
80°	979	917	855
85°	605	729	852

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 3227 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	39.8	4.7
10°-20°	109.2	13.0
20°-30°	151.1	18.0
30°-40°	161.2	19.2
40°-50°	147.0	17.5
50°-60°	115.2	13.7
60°-70°	75.1	8.9
70°-80°	33.3	4.0
80°-90°	7.1	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°	300.1	35.8
0°-40°	461.3	55.0
0°-60°	723.5	86.2
0°-90°	839.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	839.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	427	427	427	427	427	
5°	420	420	420	419	419	40
15°	393	393	389	385	383	110
25°	340	338	333	321	312	156
35°	276	274	261	241	235	173
45°	212	208	190	174	167	163
55°	147	143	129	114	108	132
65°	88	82	75	76	63	86
75°	35	33	31	29	32	38
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°	427.4	427.4	427.4	427.4	427.4
2.5°	424.4	424.4	424.4	423.9	423.9
5°	420.0	419.5	419.5	419.0	419.0
7.5°	416.5	416.0	415.5	415.0	414.0
10°	411.6	411.6	411.1	408.6	408.1
12.5°	403.7	403.2	401.2	397.7	396.7
15°	392.8	392.8	388.8	384.9	383.4
17.5°	380.9	380.4	375.5	371.5	369.6
20°	368.1	367.1	362.2	355.7	352.3
22.5°	353.8	353.8	347.8	339.4	336.0
25°	340.4	338.4	333.0	321.1	312.3
27.5°	325.1	322.1	316.2	299.4	289.0
30°	308.3	306.8	298.4	276.7	268.8
32.5°	292.5	290.0	281.1	258.4	252.0
35°	276.2	274.2	260.9	241.1	235.2
37.5°	259.9	257.4	240.6	224.8	217.4
40°	243.6	240.6	222.3	208.0	200.1
42.5°	228.3	224.3	206.5	191.2	182.3
45°	212.0	207.5	189.7	173.9	167.0
47.5°	195.7	191.7	175.4	159.1	151.2
50°	178.4	174.9	160.1	143.8	135.4
52.5°	164.0	158.6	144.3	128.0	121.0
55°	147.2	142.8	129.4	114.1	108.2
57.5°	131.9	127.5	115.1	100.8	95.9
60°	117.6	111.2	100.8	88.4	84.5
62.5°	101.8	96.8	87.9	77.6	82.5
65°	87.5	82.5	74.6	76.1	63.2
67.5°	71.6	69.2	62.3	55.3	53.4
70°	58.3	55.3	52.9	45.5	43.5
72.5°	46.4	43.5	40.0	36.1	34.6
75°	35.1	32.6	30.6	29.2	32.1
77.5°	24.2	23.2	21.7	20.3	19.8
80°	15.8	15.3	14.8	14.3	13.8
82.5°	9.4	9.4	9.4	9.4	9.4
85°	4.9	5.4	5.9	6.4	6.9
87.5°	3.0	3.0	3.5	4.0	4.4
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)