

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: P558895

Luminaire Tested: FSR-12-1-LD4-1STD-35-UNV-93-97-EDD

Issue Date: 7/20/2021

Test Information

Test Method: LM-79-2019
Report Number: P558895
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-35-UNV-93-97-EDD
Description: 1X1 FSR TROFFER WITH .156 CLEAR TEMPERED GLASS FIXTURE SIDE AND .375 CLEAR TEMPER
GLASS ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 3500K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 753.0 lumens
Efficiency: N/A
Efficacy: 90.7 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

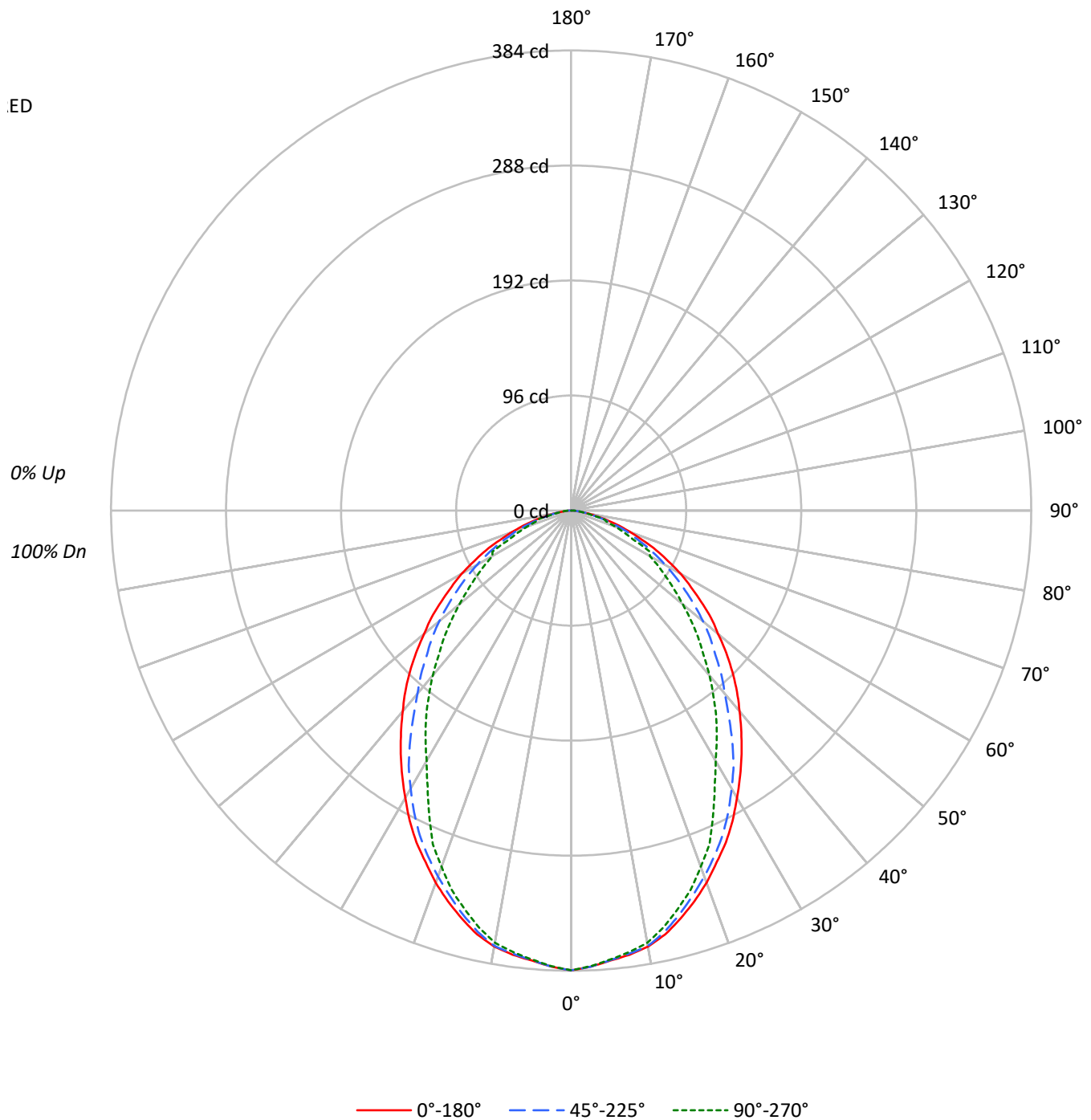
Input Watts (W): 8.3
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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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	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°	4129	4129	4129
5°	4072	4068	4063
10°	4038	4032	4004
15°	3928	3889	3835
20°	3785	3723	3622
25°	3628	3550	3328
30°	3439	3329	2998
35°	3257	3076	2774
40°	3072	2803	2524
45°	2895	2592	2282
50°	2681	2406	2035
55°	2479	2181	1822
60°	2271	1948	1632
65°	1999	1706	1447
70°	1646	1492	1227
75°	1310	1144	1198
80°	880	824	769
85°	543	655	766

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 2895 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	35.7	4.7
10°-20°	98.0	13.0
20°-30°	135.7	18.0
30°-40°	144.7	19.2
40°-50°	132.0	17.5
50°-60°	103.4	13.7
60°-70°	67.4	8.9
70°-80°	29.9	4.0
80°-90°	6.4	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°	269.4	35.8
0°-40°	414.0	55.0
0°-60°	649.4	86.2
0°-90°	753.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	753.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	384	384	384	384	384	
5°	377	376	376	376	376	36
15°	352	352	349	345	344	99
25°	306	304	299	288	280	140
35°	248	246	234	216	211	155
45°	190	186	170	156	150	147
55°	132	128	116	102	97	119
65°	78	74	67	68	57	77
75°	32	29	28	26	29	34
85°	4	5	5	6	6	6
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	383.6	383.6	383.6	383.6	383.6
2.5°	380.9	380.9	380.9	380.5	380.5
5°	376.9	376.5	376.5	376.0	376.0
7.5°	373.8	373.4	372.9	372.5	371.6
10°	369.4	369.4	368.9	366.7	366.3
12.5°	362.3	361.8	360.1	357.0	356.1
15°	352.5	352.5	349.0	345.4	344.1
17.5°	341.9	341.4	337.0	333.5	331.7
20°	330.4	329.5	325.0	319.3	316.2
22.5°	317.5	317.5	312.2	304.6	301.5
25°	305.5	303.8	298.9	288.2	280.2
27.5°	291.8	289.1	283.8	268.7	259.4
30°	276.7	275.4	267.8	248.3	241.2
32.5°	262.5	260.3	252.3	231.9	226.2
35°	247.9	246.1	234.1	216.4	211.1
37.5°	233.2	231.0	216.0	201.8	195.1
40°	218.6	216.0	199.5	186.7	179.6
42.5°	204.9	201.3	185.4	171.6	163.6
45°	190.2	186.2	170.3	156.1	149.9
47.5°	175.6	172.1	157.4	142.8	135.7
50°	160.1	157.0	143.7	129.0	121.5
52.5°	147.2	142.3	129.5	114.8	108.6
55°	132.1	128.2	116.2	102.4	97.1
57.5°	118.4	114.4	103.3	90.5	86.0
60°	105.5	99.8	90.5	79.4	75.8
62.5°	91.3	86.9	78.9	69.6	74.1
65°	78.5	74.1	67.0	68.3	56.8
67.5°	64.3	62.1	55.9	49.7	47.9
70°	52.3	49.7	47.4	40.8	39.0
72.5°	41.7	39.0	35.9	32.4	31.0
75°	31.5	29.3	27.5	26.2	28.8
77.5°	21.7	20.8	19.5	18.2	17.7
80°	14.2	13.7	13.3	12.9	12.4
82.5°	8.4	8.4	8.4	8.4	8.4
85°	4.4	4.9	5.3	5.8	6.2
87.5°	2.7	2.7	3.1	3.5	4.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)