

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: P560172

Luminaire Tested: FSR-12-2-LD4-1STD-50-UNV-93-96-EDD-90

Issue Date: 7/20/2021

Test Information

Test Method: LM-79-2019
Report Number: P560172
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-12-2-LD4-1STD-50-UNV-93-96-EDD-90
Description: 1X2 FSR TROFFER WITH .156 CLEAR TEMPERED GLASS FIXTURE SIDE AND .250 CLEAR TEMPER GLASS ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 5000K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1354.0 lumens
Efficiency: N/A
Efficacy: 81.6 lumens/watt
Spacing Criteria (0/90/45): 1.1 / 1 / 1.15
Luminous Opening: Rectangular (W 1' x L: 2' x H: 0')
CIE Type: Direct

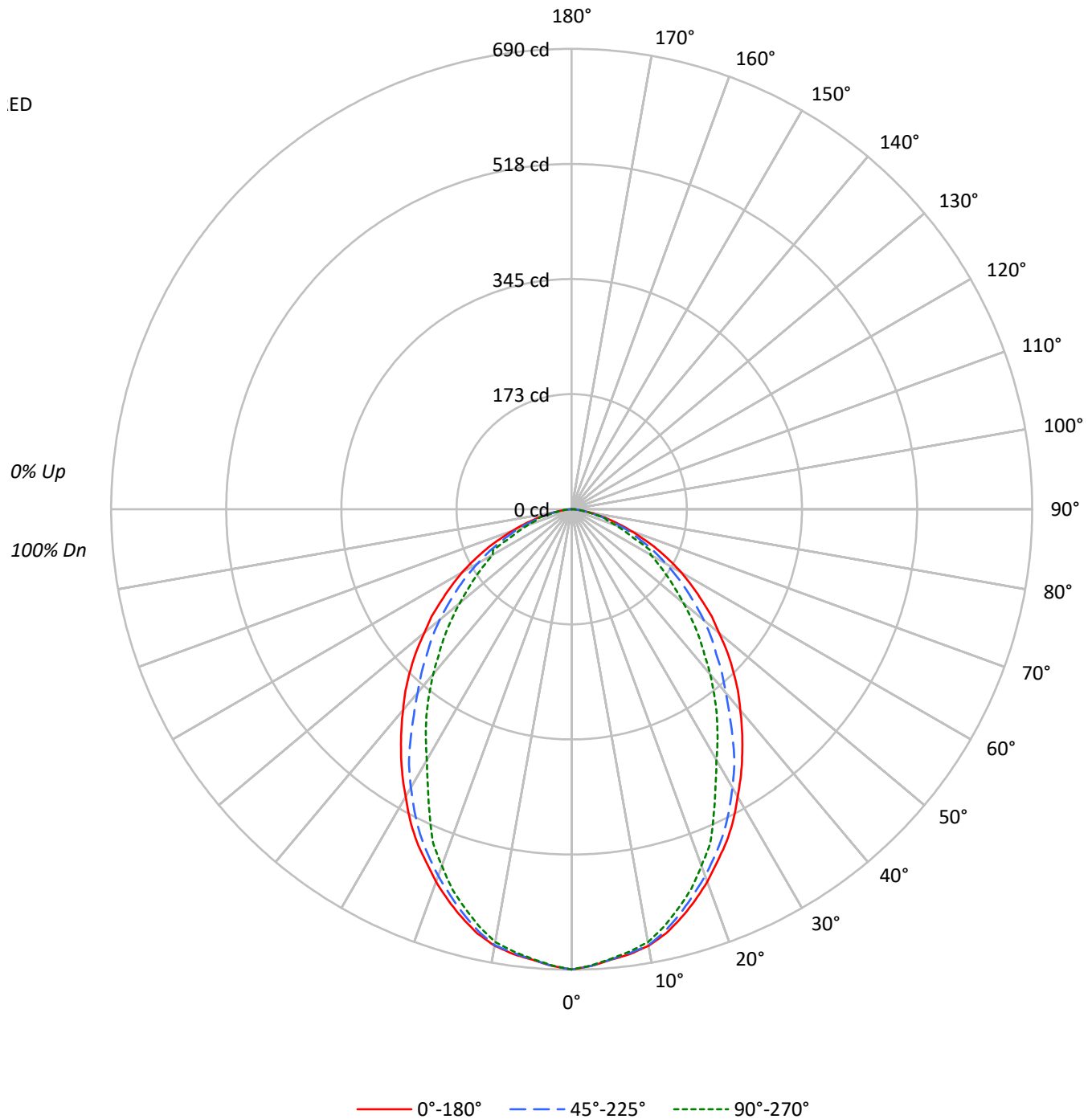
Input Watts (W): 16.6
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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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	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°	3712	3712	3712
5°	3661	3658	3653
10°	3630	3625	3599
15°	3532	3496	3447
20°	3402	3348	3256
25°	3263	3191	2992
30°	3092	2993	2696
35°	2928	2766	2493
40°	2762	2521	2269
45°	2604	2331	2051
50°	2410	2163	1829
55°	2229	1960	1638
60°	2043	1751	1467
65°	1797	1533	1300
70°	1481	1342	1105
75°	1177	1027	1077
80°	790	741	691
85°	494	593	692

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 2604 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	64.2	4.7
10°-20°	176.2	13.0
20°-30°	243.9	18.0
30°-40°	260.1	19.2
40°-50°	237.3	17.5
50°-60°	185.9	13.7
60°-70°	121.2	8.9
70°-80°	53.7	4.0
80°-90°	11.5	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°	484.3	35.8
0°-40°	744.4	55.0
0°-60°	1167.6	86.2
0°-90°	1354.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1354.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	690	690	690	690	690	
5°	678	677	677	676	676	64
15°	634	634	628	621	619	178
25°	549	546	537	518	504	252
35°	446	442	421	389	380	279
45°	342	335	306	281	270	264
55°	238	230	209	184	175	213
65°	141	133	120	123	102	139
75°	57	53	49	47	52	61
85°	8	9	10	10	11	11
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	689.7	689.7	689.7	689.7	689.7
2.5°	684.9	684.9	684.9	684.1	684.1
5°	677.7	677.0	677.0	676.2	676.2
7.5°	672.2	671.4	670.6	669.8	668.2
10°	664.2	664.2	663.4	659.4	658.6
12.5°	651.4	650.6	647.4	641.9	640.3
15°	633.9	633.9	627.5	621.1	618.7
17.5°	614.8	614.0	606.0	599.6	596.4
20°	594.0	592.4	584.5	574.1	568.5
22.5°	570.9	570.9	561.3	547.8	542.2
25°	549.4	546.2	537.4	518.3	503.9
27.5°	524.7	519.9	510.3	483.2	466.5
30°	497.5	495.2	481.6	446.5	433.8
32.5°	472.0	468.0	453.7	417.0	406.6
35°	445.7	442.5	421.0	389.1	379.5
37.5°	419.4	415.4	388.3	362.8	350.8
40°	393.1	388.3	358.8	335.7	322.9
42.5°	368.4	362.0	333.3	308.6	294.2
45°	342.1	334.9	306.2	280.7	269.5
47.5°	315.8	309.4	283.1	256.7	244.0
50°	287.8	282.3	258.3	232.0	218.5
52.5°	264.7	256.0	232.8	206.5	195.4
55°	237.6	230.4	208.9	184.2	174.6
57.5°	212.9	205.7	185.8	162.7	154.7
60°	189.8	179.4	162.7	142.7	136.3
62.5°	164.3	156.3	141.9	125.2	133.2
65°	141.1	133.2	120.4	122.8	102.1
67.5°	115.6	111.6	100.5	89.3	86.1
70°	94.1	89.3	85.3	73.4	70.2
72.5°	75.0	70.2	64.6	58.2	55.8
75°	56.6	52.6	49.4	47.0	51.8
77.5°	39.1	37.5	35.1	32.7	31.9
80°	25.5	24.7	23.9	23.1	22.3
82.5°	15.1	15.1	15.1	15.1	15.1
85°	8.0	8.8	9.6	10.4	11.2
87.5°	4.8	4.8	5.6	6.4	7.2
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)