

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: P560175

Luminaire Tested: FSR-12-2-LD4-1STD-50-UNV-93-97-EDD

Issue Date: 7/20/2021

Test Information

Test Method: LM-79-2019
Report Number: P560175
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-93-97-EDD
Description: 1X2 FSR TROFFER WITH .156 CLEAR TEMPERED GLASS FIXTURE SIDE AND .375 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: 1500.0 lumens
Efficiency: N/A
Efficacy: 90.4 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

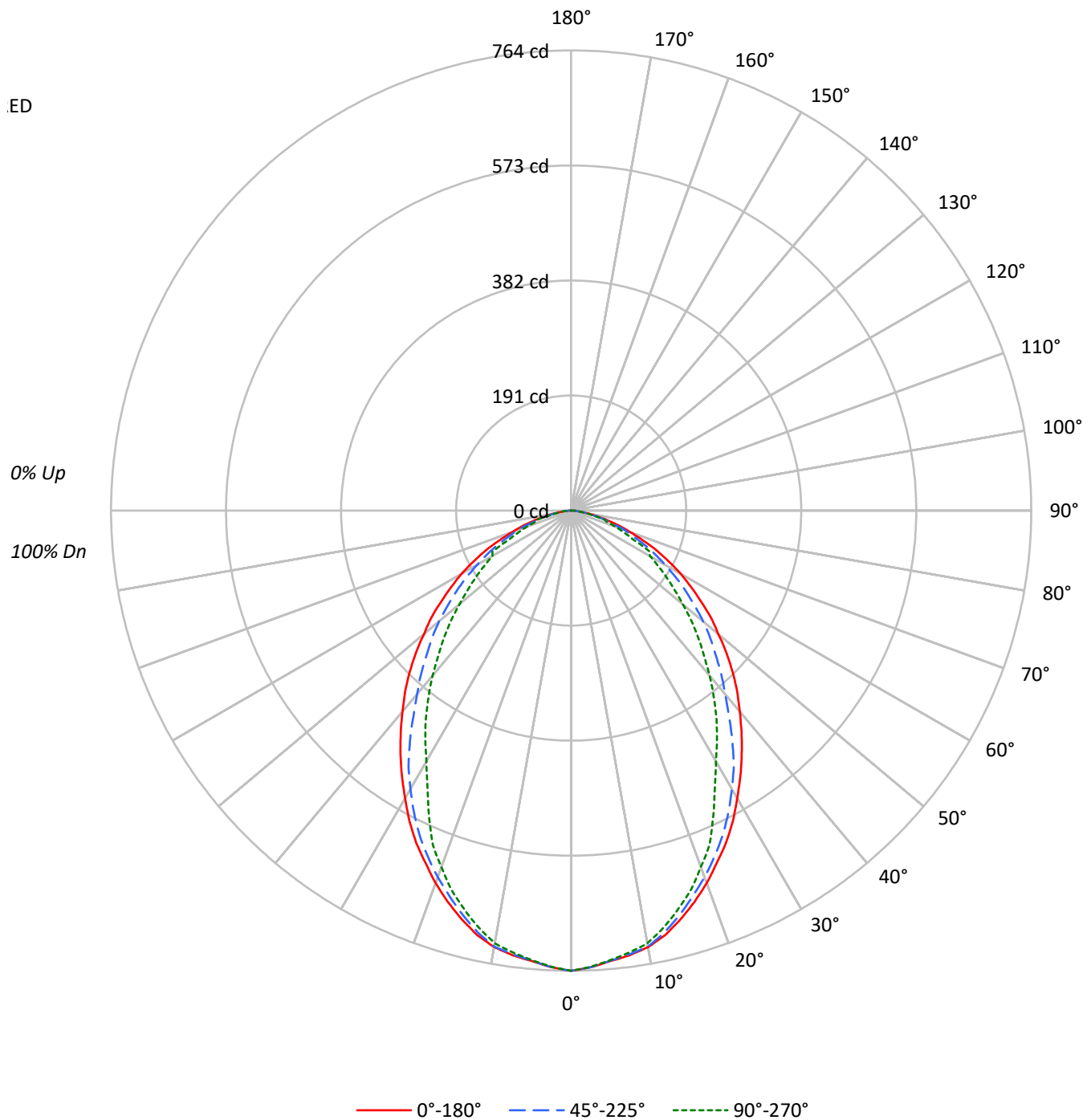
Input Watts (W): 16.6
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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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				
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°	4112	4112	4112
5°	4056	4051	4047
10°	4021	4016	3987
15°	3913	3874	3819
20°	3769	3708	3607
25°	3614	3536	3315
30°	3425	3315	2986
35°	3244	3064	2763
40°	3060	2793	2513
45°	2884	2582	2273
50°	2670	2396	2026
55°	2470	2171	1815
60°	2263	1940	1625
65°	1990	1699	1440
70°	1640	1487	1223
75°	1304	1140	1194
80°	877	821	766
85°	543	655	766

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 2884 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	71.1	4.7
10°-20°	195.2	13.0
20°-30°	270.2	18.0
30°-40°	288.2	19.2
40°-50°	262.9	17.5
50°-60°	205.9	13.7
60°-70°	134.2	8.9
70°-80°	59.5	4.0
80°-90°	12.8	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°	536.6	35.8
0°-40°	824.7	55.0
0°-60°	1293.5	86.2
0°-90°	1500.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1500.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	764	764	764	764	764	
5°	751	750	750	749	749	71
15°	702	702	695	688	686	197
25°	609	605	595	574	558	279
35°	494	490	466	431	420	309
45°	379	371	339	311	299	292
55°	263	255	231	204	193	236
65°	156	148	133	136	113	154
75°	63	58	55	52	57	67
85°	9	10	11	12	12	12
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	764.1	764.1	764.1	764.1	764.1
2.5°	758.8	758.8	758.8	757.9	757.9
5°	750.8	749.9	749.9	749.1	749.1
7.5°	744.6	743.8	742.9	742.0	740.2
10°	735.8	735.8	734.9	730.5	729.6
12.5°	721.7	720.8	717.3	711.1	709.3
15°	702.2	702.2	695.2	688.1	685.5
17.5°	681.0	680.2	671.3	664.3	660.7
20°	658.1	656.3	647.5	636.0	629.8
22.5°	632.5	632.5	621.9	606.8	600.7
25°	608.6	605.1	595.4	574.2	558.3
27.5°	581.2	575.9	565.3	535.3	516.7
30°	551.2	548.5	533.5	494.7	480.5
32.5°	522.9	518.5	502.6	462.0	450.5
35°	493.8	490.2	466.4	431.1	420.5
37.5°	464.6	460.2	430.2	401.9	388.7
40°	435.5	430.2	397.5	371.9	357.7
42.5°	408.1	401.0	369.2	341.8	325.9
45°	378.9	371.0	339.2	310.9	298.6
47.5°	349.8	342.7	313.6	284.4	270.3
50°	318.9	312.7	286.2	257.0	242.0
52.5°	293.3	283.5	257.9	228.8	216.4
55°	263.2	255.3	231.4	204.0	193.4
57.5°	235.8	227.9	205.8	180.2	171.4
60°	210.2	198.7	180.2	158.1	151.0
62.5°	182.0	173.1	157.2	138.7	147.5
65°	156.3	147.5	133.4	136.0	113.1
67.5°	128.1	123.7	111.3	98.9	95.4
70°	104.2	98.9	94.5	81.3	77.7
72.5°	83.0	77.7	71.5	64.5	61.8
75°	62.7	58.3	54.8	52.1	57.4
77.5°	43.3	41.5	38.9	36.2	35.3
80°	28.3	27.4	26.5	25.6	24.7
82.5°	16.8	16.8	16.8	16.8	16.8
85°	8.8	9.7	10.6	11.5	12.4
87.5°	5.3	5.3	6.2	7.1	7.9
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)