

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: P560171

Luminaire Tested: FSR-12-2-LD4-1STD-50-UNV-93-94-EDD

Issue Date: 7/20/2021

Test Information

Test Method: LM-79-2019
Report Number: P560171
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-93-94-EDD
Description: 1X2 FSR TROFFER WITH .156 CLEAR TEMPERED GLASS FIXTURE SIDE AND .187 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: 1574.0 lumens
Efficiency: N/A
Efficacy: 94.8 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

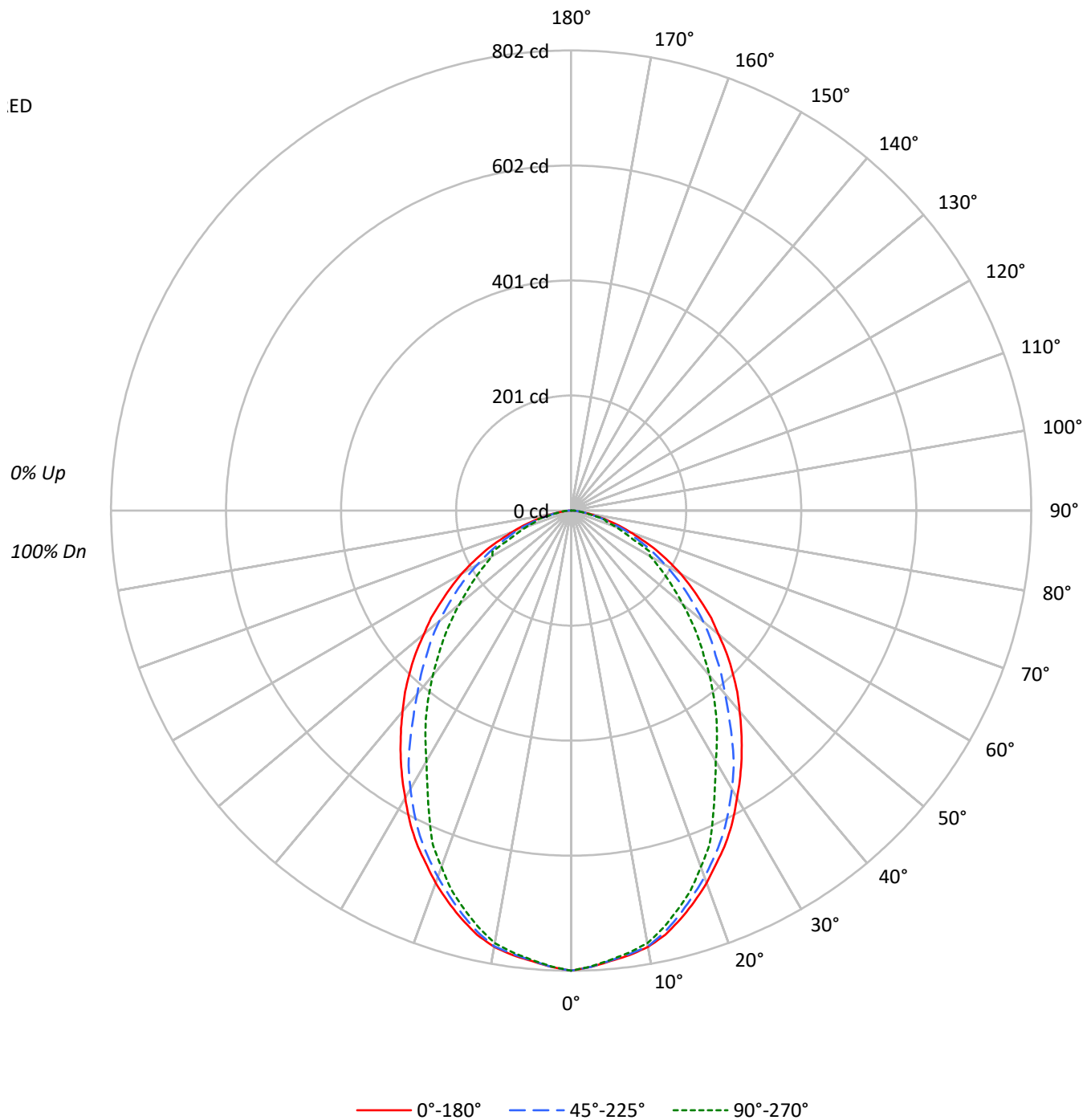
Input Watts (W): 16.6
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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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°	4315	4315	4315
5°	4257	4251	4246
10°	4220	4215	4184
15°	4106	4065	4008
20°	3955	3891	3785
25°	3792	3710	3479
30°	3594	3480	3133
35°	3404	3215	2899
40°	3211	2930	2637
45°	3026	2709	2385
50°	2802	2514	2127
55°	2592	2278	1905
60°	2375	2035	1706
65°	2090	1783	1510
70°	1721	1561	1284
75°	1368	1196	1252
80°	921	862	806
85°	574	685	803

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 3026 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	74.6	4.7
10°-20°	204.8	13.0
20°-30°	283.6	18.0
30°-40°	302.4	19.2
40°-50°	275.8	17.5
50°-60°	216.1	13.7
60°-70°	140.9	8.9
70°-80°	62.4	4.0
80°-90°	13.4	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°	563.0	35.8
0°-40°	865.4	55.0
0°-60°	1357.3	86.2
0°-90°	1574.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1574.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	802	802	802	802	802	
5°	788	787	787	786	786	75
15°	737	737	730	722	719	207
25°	639	635	625	602	586	293
35°	518	514	489	452	441	324
45°	398	389	356	326	313	306
55°	276	268	243	214	203	248
65°	164	155	140	143	119	162
75°	66	61	58	55	60	71
85°	9	10	11	12	13	13
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	801.8	801.8	801.8	801.8	801.8
2.5°	796.2	796.2	796.2	795.3	795.3
5°	787.9	786.9	786.9	786.0	786.0
7.5°	781.4	780.5	779.5	778.6	776.7
10°	772.1	772.1	771.2	766.6	765.6
12.5°	757.3	756.4	752.6	746.2	744.3
15°	736.9	736.9	729.5	722.1	719.3
17.5°	714.6	713.7	704.4	697.0	693.3
20°	690.5	688.7	679.4	667.4	660.9
22.5°	663.7	663.7	652.5	636.8	630.3
25°	638.6	634.9	624.7	602.5	585.8
27.5°	609.9	604.3	593.2	561.7	542.2
30°	578.4	575.6	559.9	519.1	504.2
32.5°	548.7	544.1	527.4	484.8	472.7
35°	518.1	514.4	489.4	452.3	441.2
37.5°	487.6	482.9	451.4	421.7	407.8
40°	457.0	451.4	417.1	390.2	375.4
42.5°	428.2	420.8	387.4	358.7	342.0
45°	397.6	389.3	355.9	326.3	313.3
47.5°	367.1	359.6	329.1	298.5	283.6
50°	334.6	328.1	300.3	269.7	254.0
52.5°	307.7	297.5	270.7	240.1	227.1
55°	276.2	267.9	242.8	214.1	203.0
57.5°	247.5	239.1	216.0	189.1	179.8
60°	220.6	208.6	189.1	165.9	158.5
62.5°	190.9	181.7	165.0	145.5	154.8
65°	164.1	154.8	140.0	142.7	118.6
67.5°	134.4	129.8	116.8	103.8	100.1
70°	109.4	103.8	99.2	85.3	81.6
72.5°	87.1	81.6	75.1	67.7	64.9
75°	65.8	61.2	57.5	54.7	60.2
77.5°	45.4	43.6	40.8	38.0	37.1
80°	29.7	28.7	27.8	26.9	26.0
82.5°	17.6	17.6	17.6	17.6	17.6
85°	9.3	10.2	11.1	12.0	13.0
87.5°	5.6	5.6	6.5	7.4	8.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)