

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: P559156

Luminaire Tested: FSR-12-1-LD4-2HI-50-UNV-80-86-EDD-90

Issue Date: 7/20/2021

Test Information

Test Method: LM-79-2019
Report Number: P559156
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-LD4-2HI-50-UNV-80-86-EDD-90
Description: 1X1 FSR TROFFER WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND .250 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 5000K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1672.0 lumens
Efficiency: N/A
Efficacy: 77.4 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

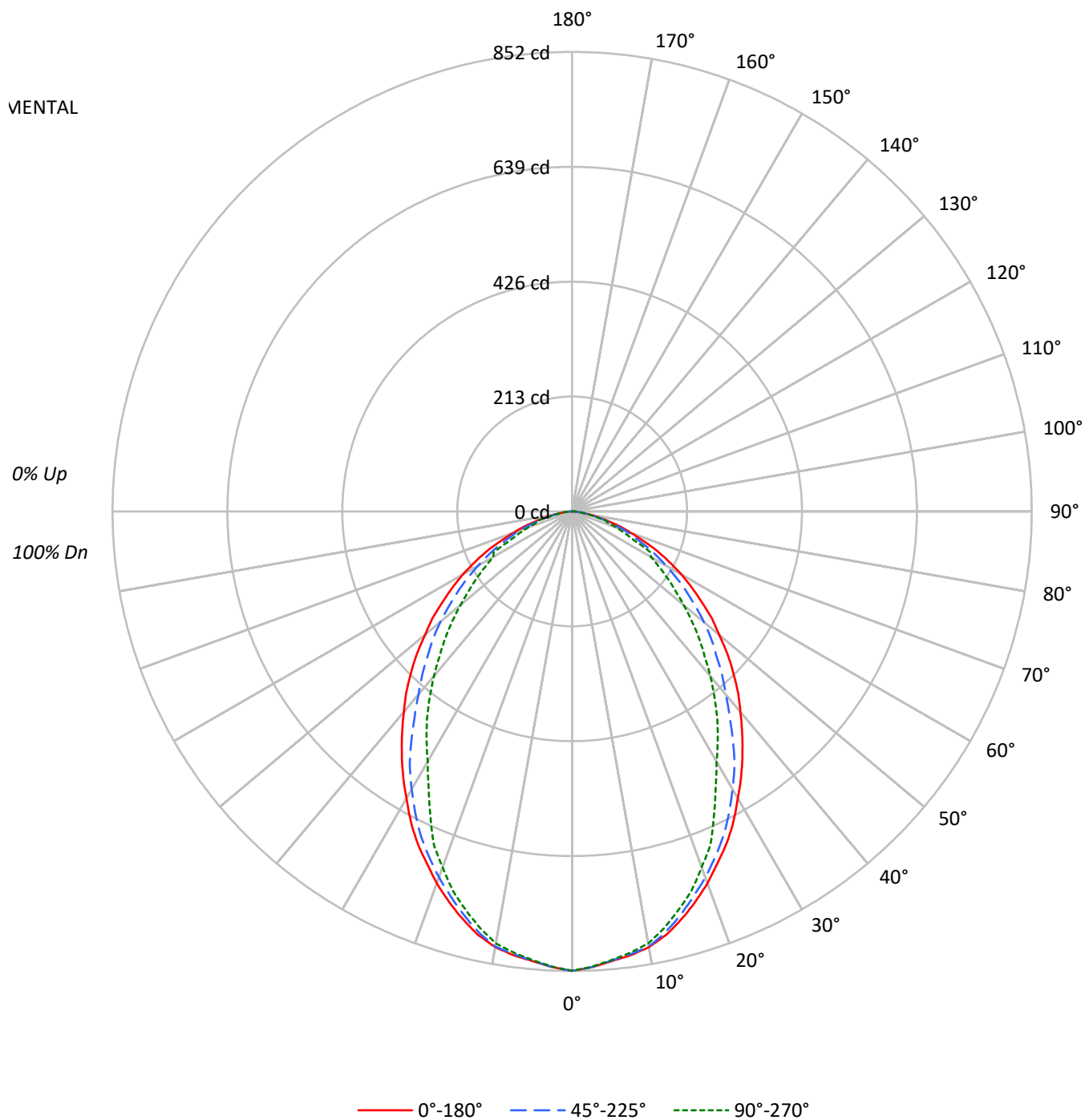
Input Watts (W): 21.6
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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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					0
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	50	30	10
RCR																				
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	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°	9168	9168	9168
5°	9043	9032	9022
10°	8965	8954	8889
15°	8723	8635	8515
20°	8402	8267	8041
25°	8057	7881	7391
30°	7636	7392	6657
35°	7232	6832	6159
40°	6820	6226	5604
45°	6430	5756	5066
50°	5951	5342	4518
55°	5506	4842	4046
60°	5044	4325	3625
65°	4439	3787	3209
70°	3657	3317	2725
75°	2907	2537	2662
80°	1953	1829	1711
85°	1210	1457	1704

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°

Vertical Angle: 45°

Luminance: 6430 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	79.3	4.7
10°-20°	217.6	13.0
20°-30°	301.2	18.0
30°-40°	321.2	19.2
40°-50°	293.0	17.5
50°-60°	229.6	13.7
60°-70°	149.6	8.9
70°-80°	66.3	4.0
80°-90°	14.2	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°	598.1	35.8
0°-40°	919.3	55.0
0°-60°	1441.9	86.2
0°-90°	1672.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1672.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	852	852	852	852	852	
5°	837	836	836	835	835	79
15°	783	783	775	767	764	220
25°	678	674	664	640	622	311
35°	550	546	520	480	469	344
45°	422	414	378	347	333	325
55°	293	285	258	227	216	263
65°	174	164	149	152	126	172
75°	70	65	61	58	64	75
85°	10	11	12	13	14	14
90°	0	0	0	0	0	

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	851.7	851.7	851.7	851.7	851.7
2.5°	845.8	845.8	845.8	844.8	844.8
5°	836.9	835.9	835.9	835.0	835.0
7.5°	830.0	829.0	828.1	827.1	825.1
10°	820.2	820.2	819.2	814.3	813.3
12.5°	804.4	803.4	799.5	792.6	790.6
15°	782.8	782.8	774.9	767.0	764.1
17.5°	759.1	758.2	748.3	740.4	736.5
20°	733.5	731.6	721.7	708.9	702.0
22.5°	705.0	705.0	693.2	676.4	669.5
25°	678.4	674.5	663.6	640.0	622.3
27.5°	647.9	642.0	630.2	596.7	576.0
30°	614.4	611.4	594.7	551.4	535.6
32.5°	582.9	578.0	560.2	515.0	502.2
35°	550.4	546.5	519.9	480.5	468.7
37.5°	517.9	513.0	479.5	448.0	433.2
40°	485.4	479.5	443.1	414.5	398.8
42.5°	454.9	447.0	411.6	381.0	363.3
45°	422.4	413.5	378.1	346.6	332.8
47.5°	389.9	382.0	349.5	317.0	301.3
50°	355.4	348.6	319.0	286.5	269.8
52.5°	326.9	316.1	287.5	255.0	241.2
55°	293.4	284.6	258.0	227.4	215.6
57.5°	262.9	254.0	229.4	200.9	191.0
60°	234.3	221.5	200.9	176.2	168.4
62.5°	202.8	193.0	175.3	154.6	164.4
65°	174.3	164.4	148.7	151.6	126.0
67.5°	142.8	137.8	124.1	110.3	106.3
70°	116.2	110.3	105.4	90.6	86.6
72.5°	92.6	86.6	79.8	71.9	68.9
75°	69.9	65.0	61.0	58.1	64.0
77.5°	48.2	46.3	43.3	40.4	39.4
80°	31.5	30.5	29.5	28.6	27.6
82.5°	18.7	18.7	18.7	18.7	18.7
85°	9.8	10.8	11.8	12.8	13.8
87.5°	5.9	5.9	6.9	7.9	8.9
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)