

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: P559164

Luminaire Tested: FSR-12-1-LD4-2HI-50-UNV-80-96-EDD-90

Issue Date: 7/20/2021

Test Information

Test Method: LM-79-2019
Report Number: P559164
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-80-96-EDD-90
Description: 1X1 FSR TROFFER WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND .250 CLEAR TEMPERED G ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 5000K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

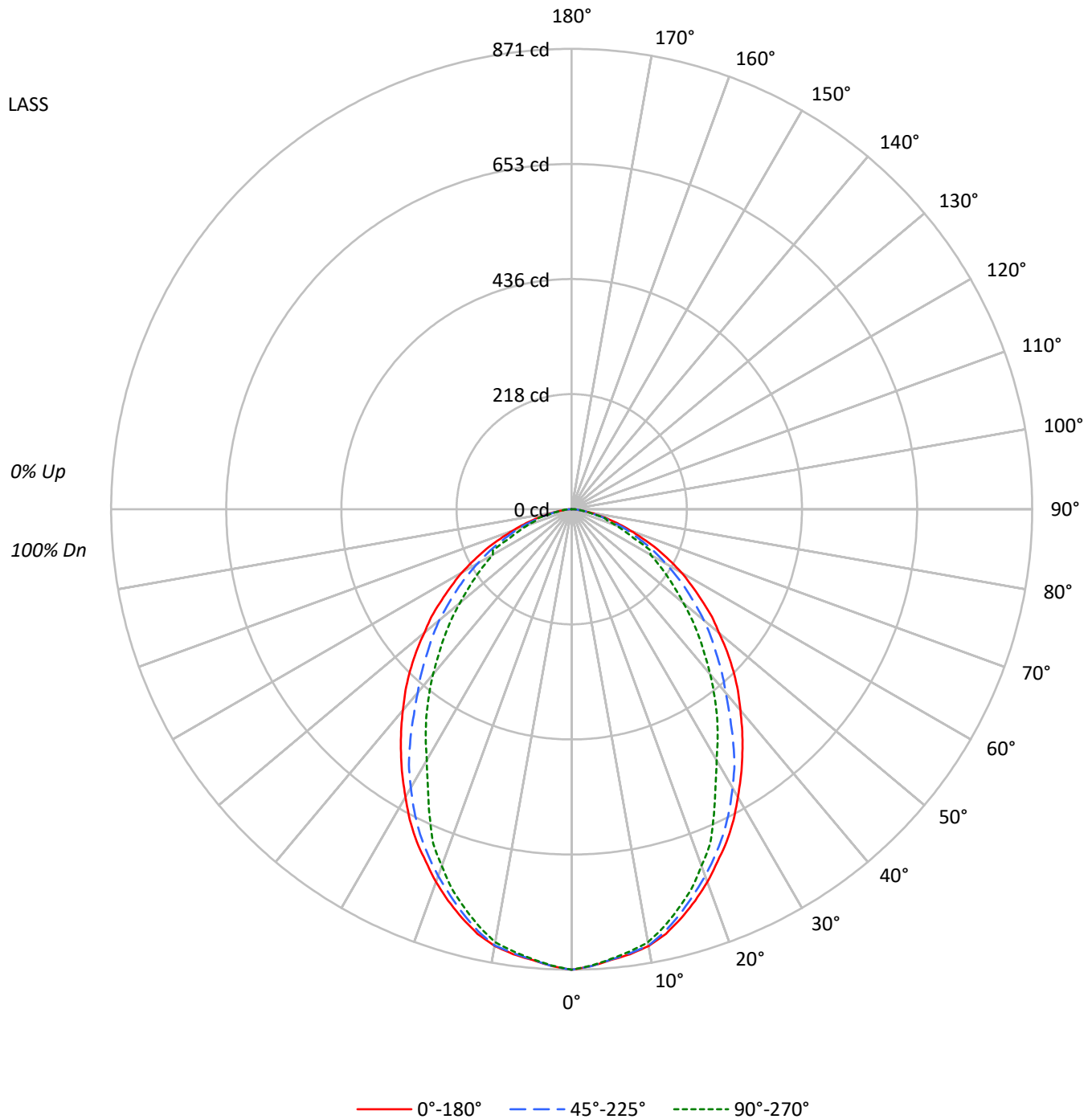
Lumens per Lamp: N/A
Luminaire Lumens: 1710.0 lumens
Efficiency: N/A
Efficacy: 79.2 lumens/watt
Spacing Criteria (0/90/45): 1.1 / 1 / 1.15
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
CIE Type: Direct

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									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	0																			
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°	9376	9376	9376
5°	9248	9237	9226
10°	9168	9157	9092
15°	8922	8831	8708
20°	8593	8455	8224
25°	8240	8061	7558
30°	7810	7559	6809
35°	7397	6987	6298
40°	6975	6367	5730
45°	6576	5887	5182
50°	6087	5464	4620
55°	5632	4951	4138
60°	5160	4422	3707
65°	4539	3874	3283
70°	3739	3389	2788
75°	2974	2595	2724
80°	1996	1872	1748
85°	1247	1494	1741

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 6576 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	81.1	4.7
10°-20°	222.5	13.0
20°-30°	308.1	18.0
30°-40°	328.5	19.2
40°-50°	299.7	17.5
50°-60°	234.8	13.7
60°-70°	153.0	8.9
70°-80°	67.8	4.0
80°-90°	14.5	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°	611.7	35.8
0°-40°	940.2	55.0
0°-60°	1474.6	86.2
0°-90°	1710.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1710.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	871	871	871	871	871	
5°	856	855	855	854	854	81
15°	801	801	792	784	781	225
25°	694	690	679	654	636	319
35°	563	559	532	491	479	352
45°	432	423	387	354	340	333
55°	300	291	264	233	220	269
65°	178	168	152	155	129	176
75°	72	66	62	59	66	77
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°	871.1	871.1	871.1	871.1	871.1
2.5°	865.0	865.0	865.0	864.0	864.0
5°	855.9	854.9	854.9	853.9	853.9
7.5°	848.9	847.9	846.9	845.9	843.9
10°	838.8	838.8	837.8	832.8	831.8
12.5°	822.7	821.7	817.7	810.6	808.6
15°	800.6	800.6	792.5	784.4	781.4
17.5°	776.4	775.4	765.3	757.3	753.2
20°	750.2	748.2	738.1	725.0	718.0
22.5°	721.0	721.0	708.9	691.8	684.8
25°	693.8	689.8	678.7	654.5	636.4
27.5°	662.6	656.6	644.5	610.2	589.1
30°	628.4	625.3	608.2	563.9	547.8
32.5°	596.1	591.1	573.0	526.7	513.6
35°	562.9	558.9	531.7	491.4	479.3
37.5°	529.7	524.6	490.4	458.2	443.1
40°	496.4	490.4	453.1	423.9	407.8
42.5°	465.2	457.2	420.9	389.7	371.6
45°	432.0	422.9	386.7	354.5	340.4
47.5°	398.8	390.7	357.5	324.3	308.1
50°	363.5	356.5	326.3	293.0	275.9
52.5°	334.3	323.2	294.0	260.8	246.7
55°	300.1	291.0	263.8	232.6	220.5
57.5°	268.9	259.8	234.6	205.4	195.4
60°	239.7	226.6	205.4	180.3	172.2
62.5°	207.4	197.4	179.2	158.1	168.2
65°	178.2	168.2	152.1	155.1	128.9
67.5°	146.0	141.0	126.9	112.8	108.8
70°	118.8	112.8	107.7	92.6	88.6
72.5°	94.7	88.6	81.6	73.5	70.5
75°	71.5	66.5	62.4	59.4	65.5
77.5°	49.3	47.3	44.3	41.3	40.3
80°	32.2	31.2	30.2	29.2	28.2
82.5°	19.1	19.1	19.1	19.1	19.1
85°	10.1	11.1	12.1	13.1	14.1
87.5°	6.0	6.0	7.0	8.1	9.1
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)