

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: P559485

Luminaire Tested: FSR-12-1-LD4-2STD-40-UNV-80-96-EDD

Issue Date: 7/20/2021

Test Information

Test Method: LM-79-2019
Report Number: P559485
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-LD4-2STD-40-UNV-80-96-EDD
Description: 1X1 FSR TROFFER WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND .250 CLEAR TEMPERED G ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 4000K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1576.0 lumens
Efficiency: N/A
Efficacy: 94.9 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

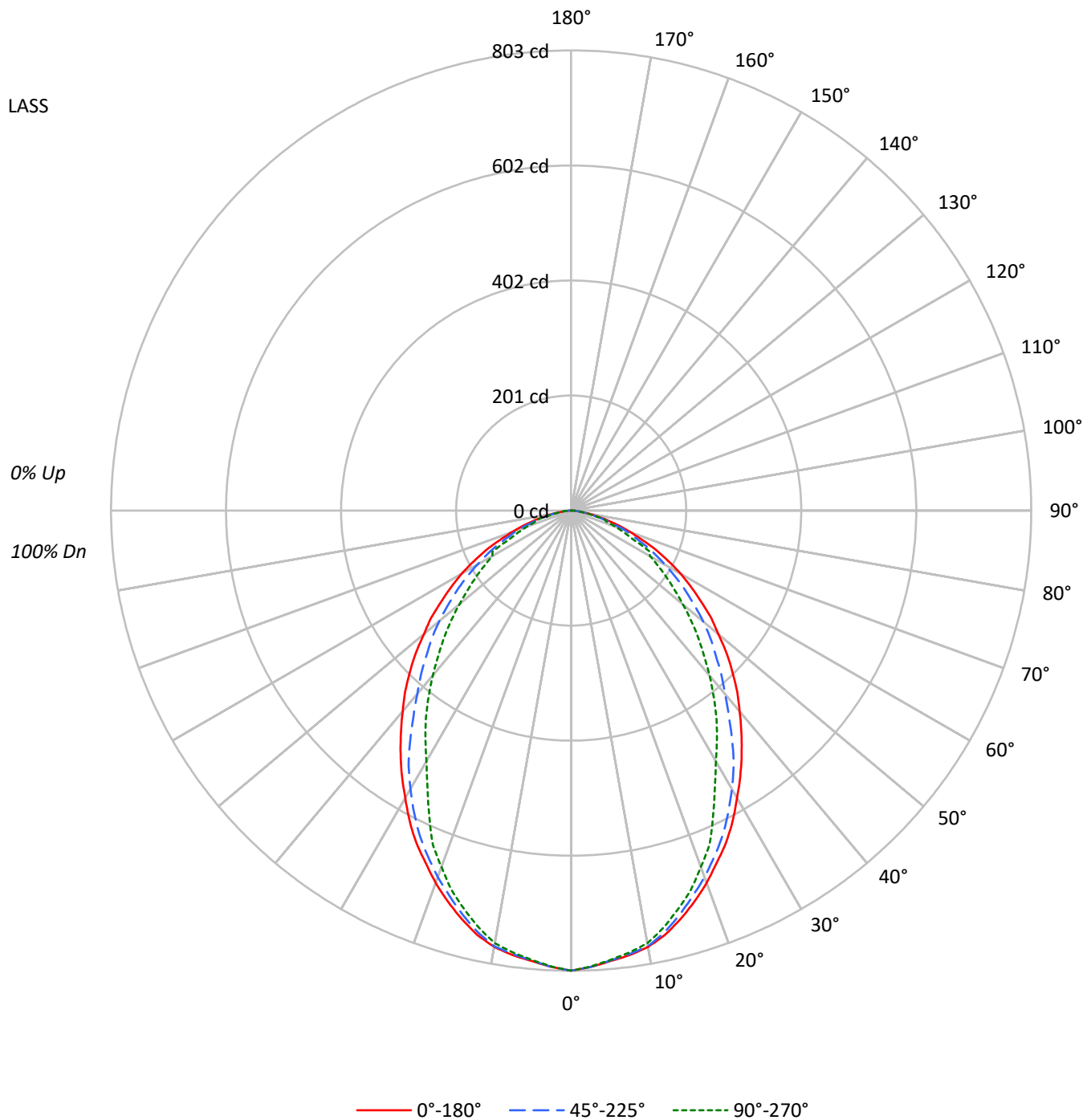
Input Watts (W): 16.6
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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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°	8641	8641	8641
5°	8524	8513	8504
10°	8450	8440	8379
15°	8222	8139	8026
20°	7920	7793	7580
25°	7595	7429	6966
30°	7198	6968	6275
35°	6817	6439	5805
40°	6428	5868	5282
45°	6060	5425	4775
50°	5610	5035	4258
55°	5191	4564	3815
60°	4755	4075	3416
65°	4185	3568	3026
70°	3446	3125	2571
75°	2741	2391	2508
80°	1841	1723	1612
85°	1149	1371	1606

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 6060 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	74.7	4.7
10°-20°	205.1	13.0
20°-30°	283.9	18.0
30°-40°	302.8	19.2
40°-50°	276.2	17.5
50°-60°	216.4	13.7
60°-70°	141.0	8.9
70°-80°	62.5	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°	563.7	35.8
0°-40°	866.5	55.0
0°-60°	1359.1	86.2
0°-90°	1576.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1576.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	803	803	803	803	803	
5°	789	788	788	787	787	75
15°	738	738	730	723	720	207
25°	640	636	626	603	586	294
35°	519	515	490	453	442	324
45°	398	390	356	327	314	307
55°	277	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°	802.8	802.8	802.8	802.8	802.8
2.5°	797.2	797.2	797.2	796.3	796.3
5°	788.9	787.9	787.9	787.0	787.0
7.5°	782.4	781.4	780.5	779.6	777.7
10°	773.1	773.1	772.2	767.5	766.6
12.5°	758.2	757.3	753.6	747.1	745.3
15°	737.8	737.8	730.4	723.0	720.2
17.5°	715.6	714.6	705.3	697.9	694.2
20°	691.4	689.6	680.3	668.2	661.7
22.5°	664.5	664.5	653.4	637.6	631.1
25°	639.5	635.7	625.5	603.3	586.5
27.5°	610.7	605.1	594.0	562.4	542.9
30°	579.1	576.3	560.6	519.7	504.9
32.5°	549.4	544.8	528.1	485.4	473.3
35°	518.8	515.1	490.0	452.9	441.8
37.5°	488.2	483.5	452.0	422.3	408.4
40°	457.5	452.0	417.6	390.7	375.9
42.5°	428.8	421.4	387.9	359.2	342.5
45°	398.1	389.8	356.4	326.7	313.7
47.5°	367.5	360.1	329.5	298.8	284.0
50°	335.0	328.5	300.7	270.1	254.3
52.5°	308.1	297.9	271.0	240.4	227.4
55°	276.6	268.2	243.2	214.4	203.3
57.5°	247.8	239.4	216.2	189.3	180.0
60°	220.9	208.8	189.3	166.1	158.7
62.5°	191.2	181.9	165.2	145.7	155.0
65°	164.3	155.0	140.1	142.9	118.8
67.5°	134.6	129.9	116.9	103.9	100.2
70°	109.5	103.9	99.3	85.4	81.7
72.5°	87.2	81.7	75.2	67.8	65.0
75°	65.9	61.3	57.5	54.8	60.3
77.5°	45.5	43.6	40.8	38.1	37.1
80°	29.7	28.8	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	12.1	13.0
87.5°	5.6	5.6	6.5	7.4	8.4
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)