

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: P590044

Luminaire Tested: FSR-24-2-LD4-1STD-35-UNV-80-97-EDD

Issue Date: 12/8/2021

Test Information

Test Method: LM-79-2019
Report Number: P590044
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2102-135-1)
Test Lab: INNOVATION CENTER
Issue Date: 12/8/2021
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: FAIL-SAFE
Catalog Number: FSR-24-2-LD4-1STD-35-UNV-80-97-EDD
Description: 2X2 FSR TROFFER WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND .375 CLEAR TEMPERED G ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 3500K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1865.0 lumens
Efficiency: N/A
Efficacy: 112.3 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.23 / 1.33
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

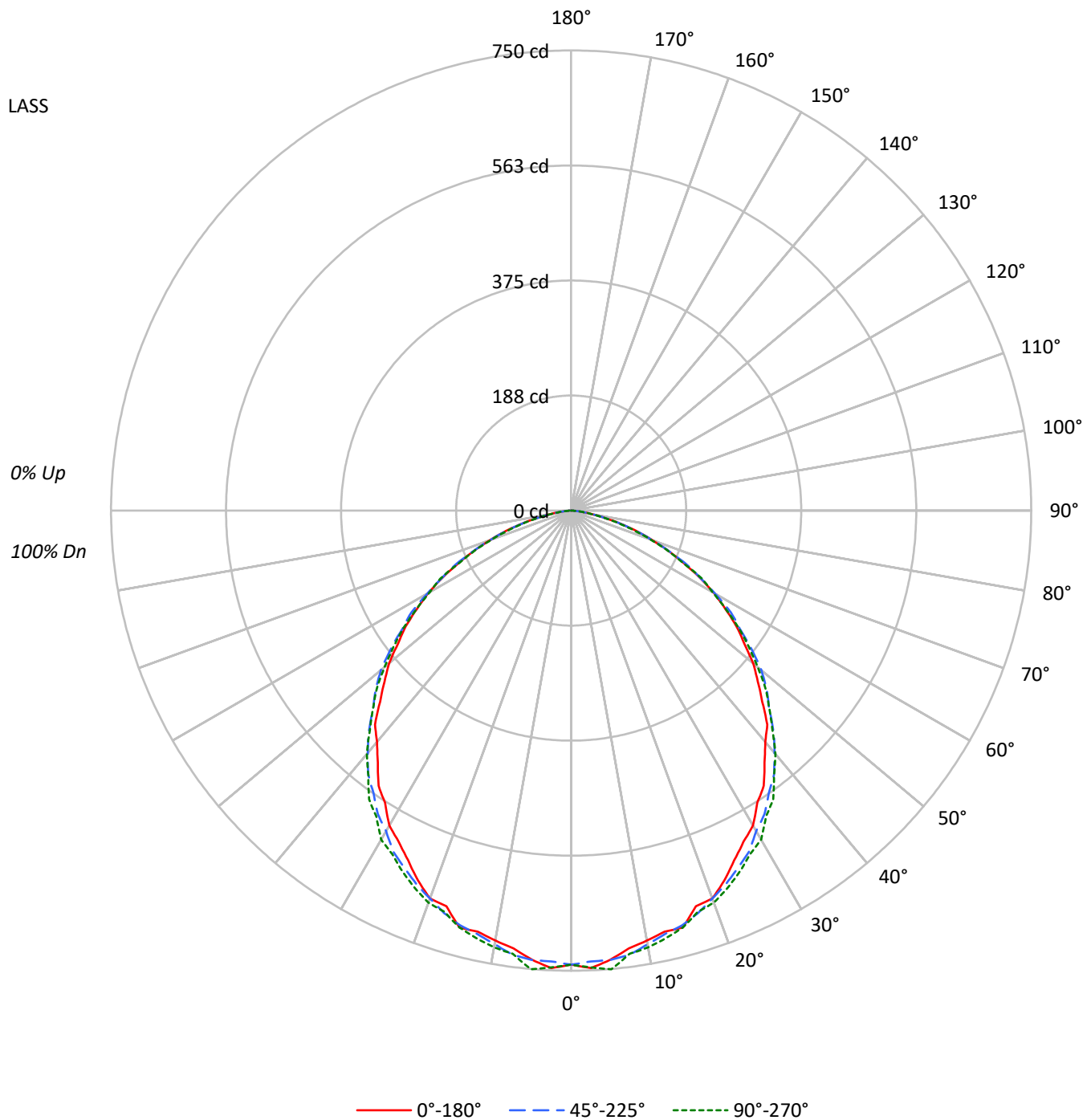
Input Watts (W): 16.6
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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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	0
RCR																		
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100
1	110	105	101	98	107	103	100	96	99	96	93	95	93	90	91	90	88	86
2	100	93	86	81	98	91	85	80	87	82	78	84	80	76	81	78	75	73
3	92	82	74	68	89	80	73	67	77	71	66	75	69	65	72	68	64	62
4	84	73	64	58	82	71	64	58	69	62	57	67	61	56	65	59	55	53
5	78	65	57	50	76	64	56	50	62	55	49	60	54	49	58	53	48	46
6	72	59	50	44	70	58	50	44	56	49	43	54	48	43	53	47	43	41
7	67	53	45	39	65	53	45	39	51	44	39	50	43	38	48	42	38	36
8	62	49	41	35	61	48	40	35	47	40	34	46	39	34	44	39	34	32
9	58	45	37	31	57	44	37	31	43	36	31	42	36	31	41	35	31	29
10	54	41	34	29	53	41	33	28	40	33	28	39	33	28	38	32	28	26

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	1991	1991	1991
5°	1985	1985	2027
10°	1944	1961	1975
15°	1960	1949	1960
20°	1927	1927	1947
25°	1868	1908	1929
30°	1842	1874	1924
35°	1799	1846	1887
40°	1728	1812	1820
45°	1676	1736	1738
50°	1621	1694	1662
55°	1544	1574	1564
60°	1445	1459	1433
65°	1288	1321	1279
70°	1105	1109	1078
75°	875	873	839
80°	586	570	549
85°	318	315	296

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 67.5°
 Vertical Angle: 45°
 Luminance: 1781 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	69.6	3.7
10°-20°	197.3	10.6
20°-30°	295.6	15.8
30°-40°	350.3	18.8
40°-50°	350.9	18.8
50°-60°	297.9	16.0
60°-70°	200.8	10.8
70°-80°	88.3	4.7
80°-90°	14.3	0.8
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°	562.4	30.2
0°-40°	912.7	48.9
0°-60°	1561.6	83.7
0°-90°	1865.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1865.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	740	740	740	740	740	
5°	735	733	735	733	750	69
15°	704	695	700	703	704	196
25°	629	632	643	651	650	291
35°	548	549	562	575	574	340
45°	440	449	456	468	457	341
55°	329	327	336	333	333	293
65°	202	200	207	200	201	201
75°	84	82	84	78	81	90
85°	10	10	10	10	10	15
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	740.0	740.0	740.0	740.0	740.0
2.5°	746.4	740.7	735.5	741.6	745.3
5°	734.7	733.0	735.0	732.8	750.5
7.5°	719.6	726.2	730.0	727.7	728.7
10°	711.6	709.3	717.8	723.7	722.9
12.5°	703.0	706.4	706.9	713.3	713.9
15°	703.5	695.4	699.7	703.3	703.6
17.5°	676.2	685.0	687.9	696.2	685.9
20°	672.8	666.4	672.8	681.3	680.0
22.5°	652.3	645.1	658.9	666.4	665.9
25°	629.0	632.4	642.7	651.1	649.8
27.5°	608.5	612.5	627.2	638.8	631.4
30°	592.8	590.7	603.2	613.5	619.2
32.5°	564.6	571.8	586.4	596.6	591.1
35°	547.5	549.1	561.8	574.8	574.4
37.5°	517.6	525.1	543.0	546.6	543.3
40°	492.0	499.6	515.7	519.7	518.0
42.5°	473.2	474.6	488.4	492.9	485.7
45°	440.5	448.7	456.1	467.9	456.8
47.5°	412.6	416.4	432.4	435.6	429.8
50°	387.2	388.6	404.7	400.8	397.0
52.5°	355.4	361.1	370.1	369.4	364.9
55°	329.2	327.0	335.6	333.4	333.3
57.5°	297.8	301.6	308.7	305.1	299.2
60°	268.4	268.5	271.1	266.9	266.2
62.5°	235.6	236.8	237.3	232.3	240.5
65°	202.3	199.6	207.4	199.5	200.8
67.5°	171.6	172.9	172.2	167.2	169.1
70°	140.4	142.2	140.9	135.3	137.0
72.5°	112.0	109.9	111.2	104.1	107.4
75°	84.2	82.5	84.0	78.1	80.7
77.5°	57.3	58.7	57.7	54.6	56.4
80°	37.8	36.8	36.8	35.0	35.4
82.5°	22.1	21.0	20.7	20.2	21.0
85°	10.3	10.0	10.2	9.9	9.6
87.5°	3.7	3.8	3.8	3.6	3.4
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)