

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: P562427

Luminaire Tested: FSR-24-4-LD4-1STD-50-UNV-80-94-EDD

Issue Date: 7/20/2021

Test Information

Test Method: LM-79-2019
Report Number: P562427
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-24-4-LD4-1STD-50-UNV-80-94-EDD
Description: 2X4 FSR TROFFER WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND .187 CLEAR TEMPERED G ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 5000K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4018.0 lumens
Efficiency: N/A
Efficacy: 120.7 lumens/watt
Spacing Criteria (0/90/45): 1.1 / 1 / 1.15
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

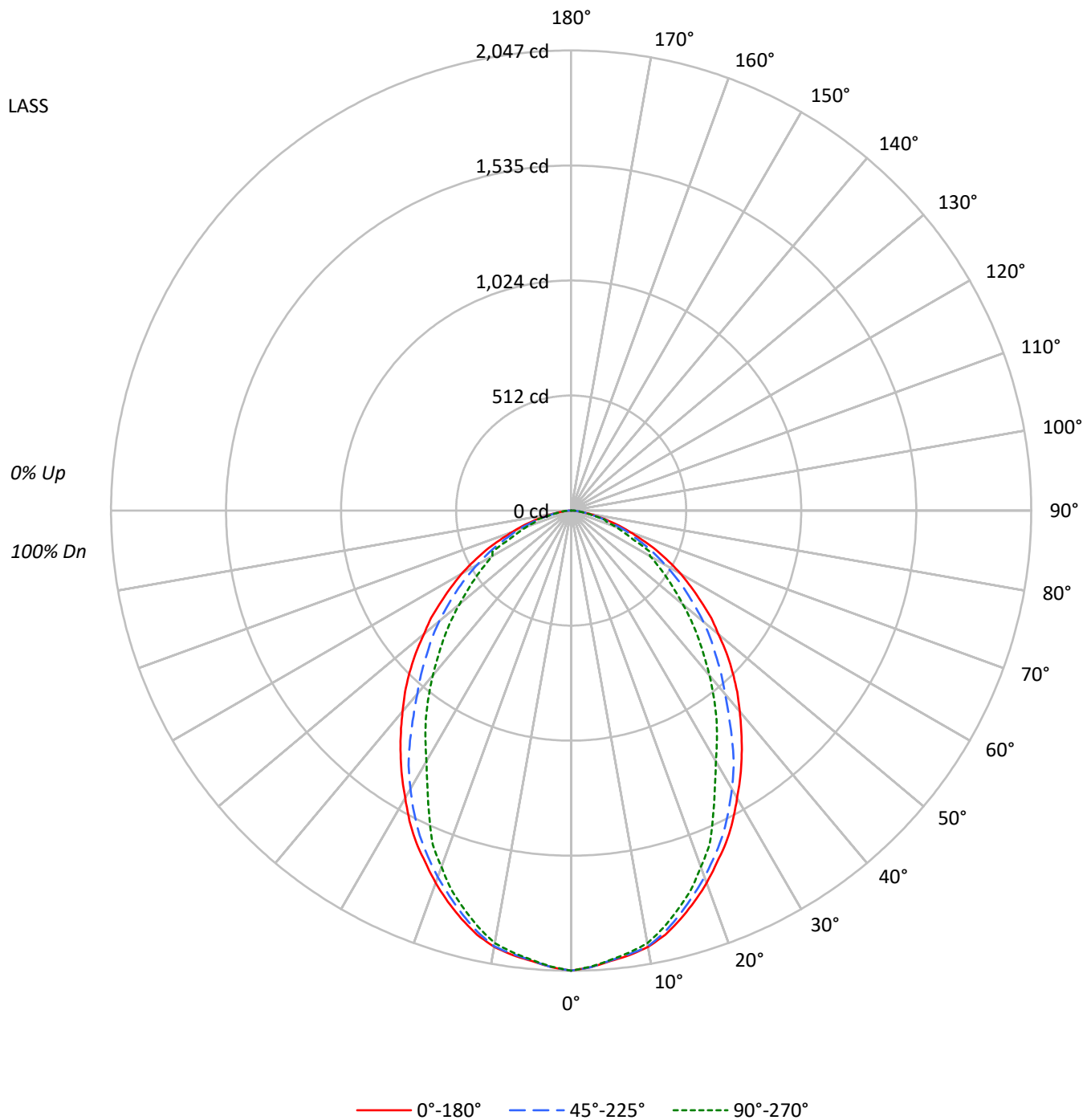
Input Watts (W): 33.3
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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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	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°	2754	2754	2754
5°	2716	2713	2710
10°	2693	2690	2670
15°	2620	2594	2558
20°	2524	2483	2416
25°	2420	2368	2220
30°	2294	2220	2000
35°	2173	2052	1850
40°	2049	1870	1683
45°	1932	1729	1522
50°	1788	1605	1357
55°	1654	1454	1216
60°	1515	1299	1089
65°	1333	1138	964
70°	1098	996	819
75°	873	763	800
80°	587	550	514
85°	366	438	511

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 1932 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	190.5	4.7
10°-20°	522.9	13.0
20°-30°	723.9	18.0
30°-40°	771.9	19.2
40°-50°	704.2	17.5
50°-60°	551.7	13.7
60°-70°	359.5	8.9
70°-80°	159.3	4.0
80°-90°	34.2	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°	1437.3	35.8
0°-40°	2209.1	55.0
0°-60°	3465.0	86.2
0°-90°	4018.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4018.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2047	2047	2047	2047	2047	
5°	2011	2009	2009	2006	2006	191
15°	1881	1881	1862	1843	1836	529
25°	1630	1621	1595	1538	1495	748
35°	1323	1313	1249	1155	1126	827
45°	1015	994	909	833	800	782
55°	705	684	620	547	518	632
65°	419	395	357	364	303	413
75°	168	156	147	140	154	180
85°	24	26	28	31	33	33
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2046.7	2046.7	2046.7	2046.7	2046.7
2.5°	2032.5	2032.5	2032.5	2030.2	2030.2
5°	2011.2	2008.9	2008.9	2006.5	2006.5
7.5°	1994.7	1992.3	1989.9	1987.6	1982.8
10°	1971.0	1971.0	1968.6	1956.8	1954.4
12.5°	1933.1	1930.8	1921.3	1904.7	1900.0
15°	1881.1	1881.1	1862.2	1843.2	1836.1
17.5°	1824.3	1821.9	1798.3	1779.3	1769.9
20°	1762.8	1758.0	1734.4	1703.6	1687.1
22.5°	1694.2	1694.2	1665.8	1625.5	1609.0
25°	1630.3	1620.8	1594.8	1538.0	1495.4
27.5°	1556.9	1542.7	1514.3	1433.9	1384.2
30°	1476.5	1469.4	1429.2	1325.0	1287.2
32.5°	1400.8	1388.9	1346.3	1237.5	1206.7
35°	1322.7	1313.2	1249.3	1154.7	1126.3
37.5°	1244.6	1232.8	1152.3	1076.6	1041.1
40°	1166.5	1152.3	1064.8	996.1	958.3
42.5°	1093.2	1074.2	989.0	915.7	873.1
45°	1015.1	993.8	908.6	832.9	799.8
47.5°	937.0	918.1	840.0	761.9	724.0
50°	854.2	837.6	766.6	688.5	648.3
52.5°	785.6	759.5	690.9	612.8	579.7
55°	705.1	683.8	619.9	546.6	518.2
57.5°	631.8	610.5	551.3	482.7	459.0
60°	563.1	532.4	482.7	423.5	404.6
62.5°	487.4	463.8	421.2	371.5	395.1
65°	418.8	395.1	357.3	364.4	302.9
67.5°	343.1	331.3	298.1	265.0	255.5
70°	279.2	265.0	253.2	217.7	208.2
72.5°	222.4	208.2	191.7	172.7	165.6
75°	168.0	156.2	146.7	139.6	153.8
77.5°	115.9	111.2	104.1	97.0	94.6
80°	75.7	73.4	71.0	68.6	66.3
82.5°	45.0	45.0	45.0	45.0	45.0
85°	23.7	26.0	28.4	30.8	33.1
87.5°	14.2	14.2	16.6	18.9	21.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)