

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: P590139

Luminaire Tested: FSR-24-2-LD4-2HI-35-UNV-80-96-EDD

Issue Date: 12/8/2021

Test Information

Test Method: LM-79-2019
Report Number: P590139
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-LD4-2HI-35-UNV-80-96-EDD
Description: 2X2 FSR TROFFER WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND .250 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: 4745.0 lumens
Efficiency: N/A
Efficacy: 109.8 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

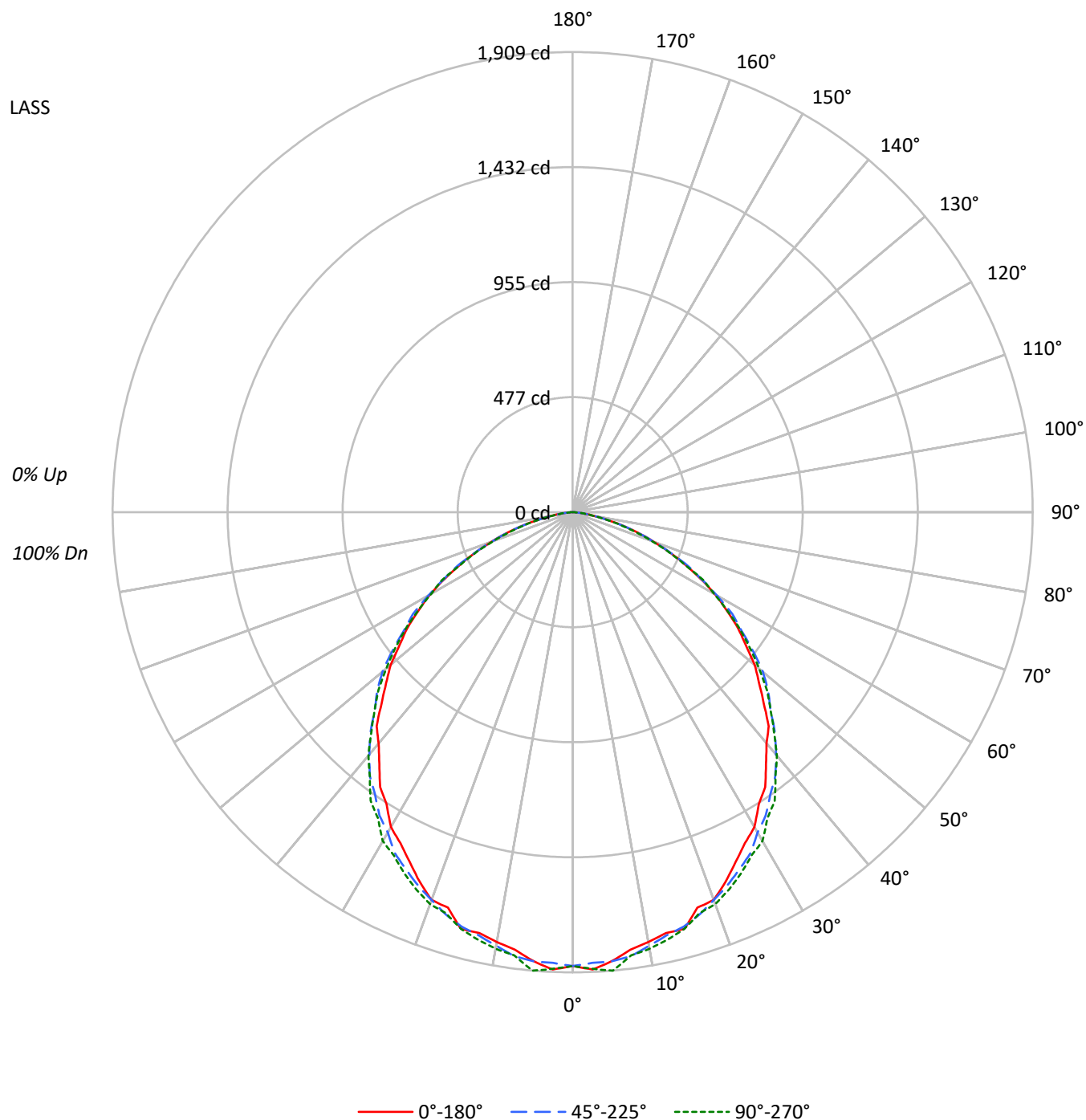
Input Watts (W): 43.2
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	5066	5066	5066
5°	5049	5052	5158
10°	4947	4990	5026
15°	4986	4959	4987
20°	4902	4902	4954
25°	4751	4855	4909
30°	4686	4768	4895
35°	4576	4695	4801
40°	4398	4610	4630
45°	4265	4416	4423
50°	4124	4311	4228
55°	3930	4007	3978
60°	3675	3711	3645
65°	3277	3360	3254
70°	2811	2821	2743
75°	2227	2222	2136
80°	1492	1450	1393
85°	812	803	750

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 67.5°

Vertical Angle: 45°

Luminance: 4530 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	177.1	3.7
10°-20°	501.9	10.6
20°-30°	752.0	15.8
30°-40°	891.2	18.8
40°-50°	892.9	18.8
50°-60°	757.9	16.0
60°-70°	511.0	10.8
70°-80°	224.5	4.7
80°-90°	36.5	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°	1431.0	30.2
0°-40°	2322.2	48.9
0°-60°	3973.0	83.7
0°-90°	4745.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4745.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1883	1883	1883	1883	1883	
5°	1869	1865	1870	1864	1909	176
15°	1790	1769	1780	1789	1790	499
25°	1600	1609	1635	1657	1653	740
35°	1393	1397	1429	1462	1461	865
45°	1121	1142	1160	1190	1162	867
55°	838	832	854	848	848	745
65°	515	508	528	508	511	512
75°	214	210	214	199	205	230
85°	26	26	26	25	24	38
90°	0	0	0	0	0	

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1882.7	1882.7	1882.7	1882.7	1882.7
2.5°	1899.0	1884.6	1871.3	1886.8	1896.3
5°	1869.3	1865.0	1870.1	1864.5	1909.4
7.5°	1830.9	1847.7	1857.4	1851.3	1854.0
10°	1810.5	1804.7	1826.3	1841.4	1839.2
12.5°	1788.6	1797.4	1798.6	1814.9	1816.3
15°	1789.8	1769.2	1780.1	1789.4	1790.1
17.5°	1720.3	1742.7	1750.2	1771.4	1745.1
20°	1711.8	1695.5	1711.8	1733.4	1730.0
22.5°	1659.5	1641.3	1676.3	1695.5	1694.3
25°	1600.2	1609.0	1635.2	1656.6	1653.2
27.5°	1548.2	1558.4	1595.9	1625.3	1606.3
30°	1508.1	1503.0	1534.6	1560.9	1575.4
32.5°	1436.4	1454.9	1491.8	1517.8	1504.0
35°	1392.9	1397.0	1429.3	1462.4	1461.4
37.5°	1316.8	1336.0	1381.5	1390.7	1382.2
40°	1251.9	1271.1	1312.2	1322.1	1318.0
42.5°	1204.0	1207.4	1242.7	1254.1	1235.8
45°	1120.6	1141.5	1160.5	1190.4	1162.2
47.5°	1049.6	1059.4	1100.2	1108.2	1093.4
50°	985.2	988.6	1029.7	1019.7	1010.0
52.5°	904.3	918.6	941.7	939.8	928.3
55°	837.7	832.1	854.0	848.1	847.9
57.5°	757.7	767.4	785.4	776.2	761.3
60°	682.8	683.1	689.6	679.2	677.2
62.5°	599.4	602.4	603.8	590.9	611.8
65°	514.6	507.8	527.7	507.6	511.0
67.5°	436.6	440.0	438.0	425.4	430.3
70°	357.3	361.7	358.6	344.2	348.6
72.5°	284.9	279.5	283.0	265.0	273.2
75°	214.2	209.8	213.7	198.6	205.4
77.5°	145.9	149.3	146.8	138.8	143.4
80°	96.3	93.6	93.6	89.0	89.9
82.5°	56.2	53.5	52.7	51.3	53.5
85°	26.3	25.5	26.0	25.3	24.3
87.5°	9.5	9.7	9.7	9.2	8.8
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)