

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: P590615

Luminaire Tested: FSR-24-2-LD4-3STD-35-UNV-80-86-EDD

Issue Date: 12/8/2021

Test Information

Test Method: LM-79-2019
Report Number: P590615
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-LD4-3STD-35-UNV-80-86-EDD
Description: 2X2 FSR TROFFER WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND .250 CLEAR PC ENVIRON
SIDE LENSES WITH, 80 CRI AND 3500K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 5673.0 lumens
Efficiency: N/A
Efficacy: 113.5 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

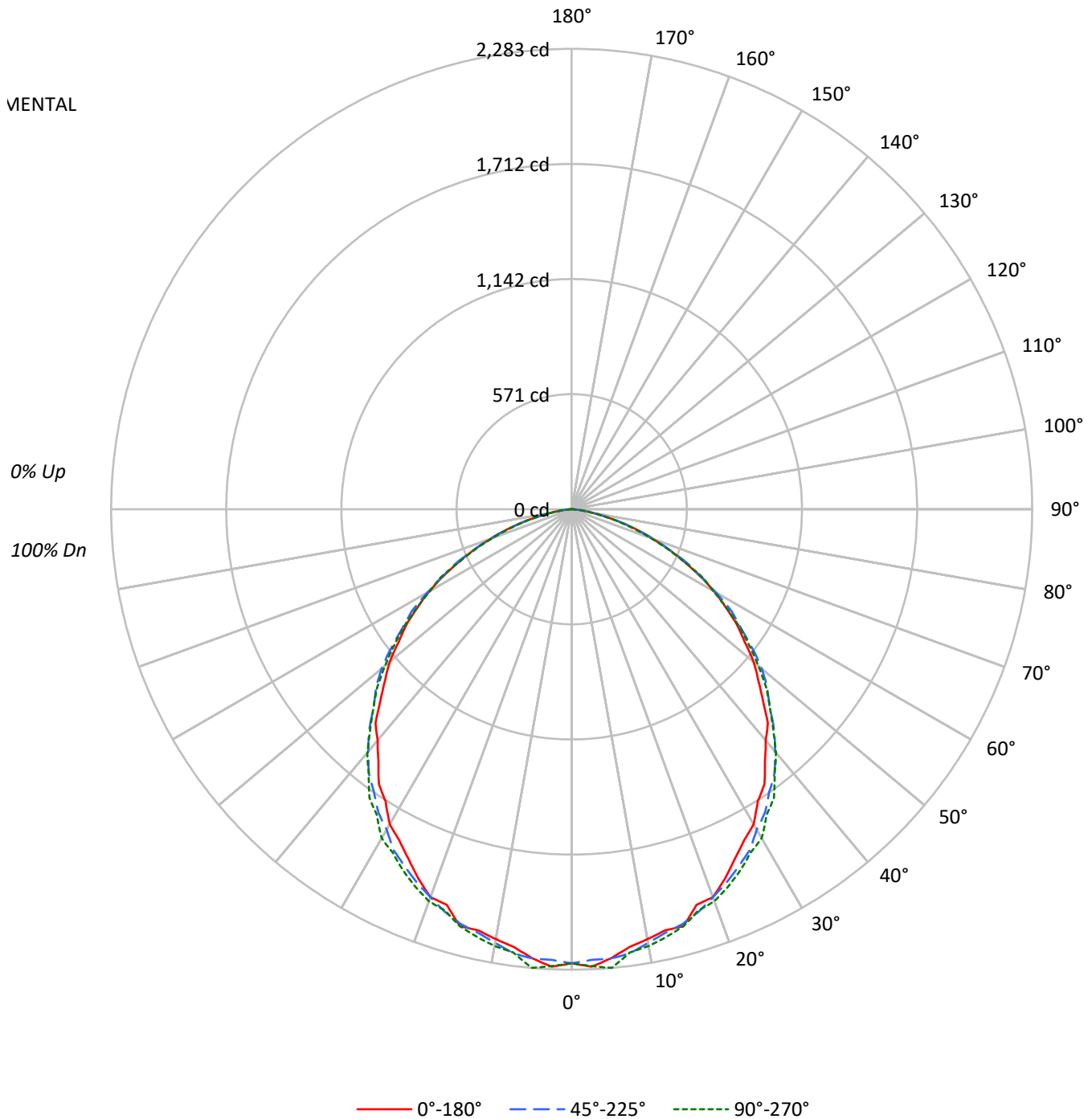
Input Watts (W): 50
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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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°	6057	6057	6057
5°	6037	6039	6167
10°	5915	5966	6008
15°	5962	5929	5962
20°	5861	5861	5923
25°	5681	5805	5869
30°	5602	5701	5853
35°	5471	5614	5740
40°	5258	5511	5536
45°	5099	5280	5288
50°	4931	5154	5056
55°	4699	4790	4756
60°	4394	4437	4358
65°	3918	4018	3890
70°	3361	3373	3279
75°	2662	2656	2554
80°	1784	1734	1666
85°	969	960	898

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 67.5°
 Vertical Angle: 45°
 Luminance: 5416 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	211.7	3.7
10°-20°	600.1	10.6
20°-30°	899.0	15.8
30°-40°	1065.5	18.8
40°-50°	1067.5	18.8
50°-60°	906.1	16.0
60°-70°	610.9	10.8
70°-80°	268.4	4.7
80°-90°	43.6	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°	1710.8	30.2
0°-40°	2776.4	48.9
0°-60°	4750.0	83.7
0°-90°	5673.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5673.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2251	2251	2251	2251	2251	
5°	2235	2230	2236	2229	2283	211
15°	2140	2115	2128	2139	2140	596
25°	1913	1924	1955	1981	1977	884
35°	1665	1670	1709	1748	1747	1034
45°	1340	1365	1388	1423	1390	1036
55°	1002	995	1021	1014	1014	891
65°	615	607	631	607	611	612
75°	256	251	256	237	246	274
85°	31	30	31	30	29	45
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2250.9	2250.9	2250.9	2250.9	2250.9
2.5°	2270.4	2253.2	2237.2	2255.8	2267.2
5°	2234.9	2229.7	2235.8	2229.1	2282.9
7.5°	2189.0	2209.1	2220.7	2213.4	2216.6
10°	2164.6	2157.6	2183.5	2201.5	2198.9
12.5°	2138.4	2148.9	2150.3	2169.8	2171.6
15°	2139.9	2115.2	2128.3	2139.3	2140.2
17.5°	2056.8	2083.5	2092.5	2117.8	2086.4
20°	2046.6	2027.1	2046.6	2072.5	2068.4
22.5°	1984.1	1962.3	2004.2	2027.1	2025.7
25°	1913.2	1923.7	1955.0	1980.6	1976.6
27.5°	1851.0	1863.2	1908.0	1943.1	1920.5
30°	1803.0	1796.9	1834.7	1866.1	1883.6
32.5°	1717.3	1739.4	1783.6	1814.7	1798.1
35°	1665.3	1670.2	1708.9	1748.4	1747.2
37.5°	1574.3	1597.3	1651.6	1662.7	1652.5
40°	1496.7	1519.7	1568.8	1580.7	1575.8
42.5°	1439.5	1443.5	1485.7	1499.3	1477.5
45°	1339.8	1364.8	1387.5	1423.2	1389.5
47.5°	1254.9	1266.6	1315.4	1325.0	1307.2
50°	1177.9	1182.0	1231.1	1219.2	1207.6
52.5°	1081.1	1098.3	1125.9	1123.6	1109.9
55°	1001.5	994.8	1021.0	1014.0	1013.7
57.5°	905.9	917.5	939.0	928.0	910.2
60°	816.4	816.7	824.5	812.0	809.7
62.5°	716.7	720.2	721.9	706.5	731.5
65°	615.3	607.1	631.0	606.8	610.9
67.5°	522.0	526.0	523.7	508.6	514.4
70°	427.2	432.5	428.7	411.5	416.8
72.5°	340.6	334.2	338.3	316.8	326.7
75°	256.0	250.8	255.5	237.4	245.6
77.5°	174.4	178.4	175.5	165.9	171.5
80°	115.1	111.9	111.9	106.4	107.5
82.5°	67.1	63.9	63.1	61.3	63.9
85°	31.4	30.5	31.1	30.2	29.1
87.5°	11.3	11.6	11.6	11.0	10.5
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)