

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: P590203

Luminaire Tested: FSR-24-2-LD4-2HI-50-UNV-80-96-EDD

Issue Date: 12/8/2021

Test Information

Test Method: LM-79-2019
Report Number: P590203
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-50-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 5000K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

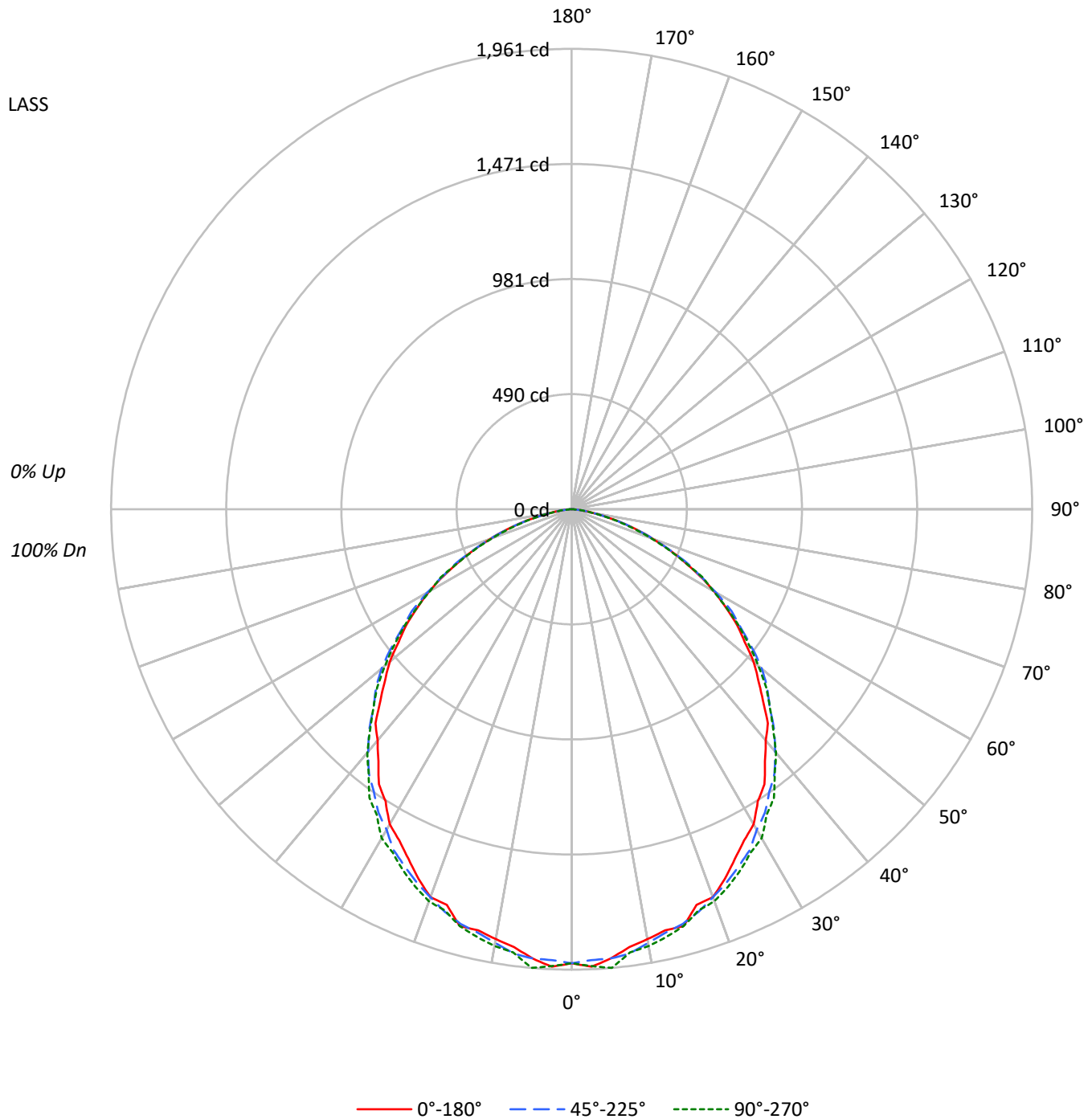
Lumens per Lamp: N/A
Luminaire Lumens: 4873.0 lumens
Efficiency: N/A
Efficacy: 112.8 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.23 / 1.33
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

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																		
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	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°	5203	5203	5203
5°	5186	5188	5297
10°	5081	5125	5161
15°	5121	5093	5122
20°	5034	5034	5088
25°	4880	4986	5041
30°	4813	4897	5027
35°	4699	4822	4931
40°	4516	4734	4755
45°	4380	4536	4542
50°	4236	4427	4343
55°	4036	4115	4085
60°	3774	3812	3743
65°	3365	3451	3341
70°	2888	2897	2817
75°	2286	2281	2193
80°	1533	1489	1432
85°	834	824	772

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 67.5°
 Vertical Angle: 45°
 Luminance: 4652 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	181.9	3.7
10°-20°	515.4	10.6
20°-30°	772.3	15.8
30°-40°	915.3	18.8
40°-50°	917.0	18.8
50°-60°	778.4	16.0
60°-70°	524.8	10.8
70°-80°	230.6	4.7
80°-90°	37.5	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°	1469.6	30.2
0°-40°	2384.9	48.9
0°-60°	4080.2	83.7
0°-90°	4873.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4873.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1934	1934	1934	1934	1934	
5°	1920	1915	1920	1915	1961	181
15°	1838	1817	1828	1838	1838	512
25°	1643	1652	1679	1701	1698	760
35°	1430	1435	1468	1502	1501	888
45°	1151	1172	1192	1222	1194	890
55°	860	854	877	871	871	765
65°	528	522	542	521	525	526
75°	220	215	219	204	211	236
85°	27	26	27	26	25	39
90°	0	0	0	0	0	

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1933.5	1933.5	1933.5	1933.5	1933.5
2.5°	1950.2	1935.5	1921.8	1937.7	1947.5
5°	1919.8	1915.3	1920.5	1914.8	1960.9
7.5°	1880.3	1897.5	1907.5	1901.3	1904.0
10°	1859.3	1853.3	1875.6	1891.0	1888.8
12.5°	1836.9	1845.9	1847.1	1863.8	1865.3
15°	1838.1	1816.9	1828.1	1837.6	1838.4
17.5°	1766.7	1789.7	1797.4	1819.1	1792.2
20°	1758.0	1741.3	1758.0	1780.2	1776.7
22.5°	1704.3	1685.6	1721.5	1741.3	1740.0
25°	1643.4	1652.4	1679.3	1701.3	1697.8
27.5°	1590.0	1600.5	1638.9	1669.1	1649.6
30°	1548.8	1543.5	1576.0	1603.0	1617.9
32.5°	1475.1	1494.1	1532.1	1558.8	1544.5
35°	1430.5	1434.7	1467.9	1501.9	1500.9
37.5°	1352.3	1372.0	1418.7	1428.2	1419.5
40°	1285.7	1305.4	1347.6	1357.8	1353.6
42.5°	1236.5	1240.0	1276.2	1287.9	1269.2
45°	1150.9	1172.3	1191.8	1222.5	1193.5
47.5°	1078.0	1087.9	1129.9	1138.1	1122.9
50°	1011.8	1015.3	1057.5	1047.3	1037.3
52.5°	928.7	943.4	967.1	965.1	953.4
55°	860.3	854.5	877.0	871.0	870.8
57.5°	778.1	788.1	806.6	797.1	781.9
60°	701.2	701.5	708.2	697.5	695.5
62.5°	615.6	618.6	620.1	606.9	628.4
65°	528.5	521.5	542.0	521.3	524.7
67.5°	448.4	451.9	449.9	436.9	441.9
70°	367.0	371.5	368.2	353.5	358.0
72.5°	292.6	287.1	290.6	272.1	280.6
75°	219.9	215.4	219.4	204.0	210.9
77.5°	149.8	153.3	150.8	142.5	147.3
80°	98.9	96.1	96.1	91.4	92.4
82.5°	57.7	54.9	54.2	52.7	54.9
85°	27.0	26.2	26.7	26.0	25.0
87.5°	9.7	10.0	10.0	9.5	9.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)