

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: P562741

Luminaire Tested: FSR-24-4-LD4-2LO-40-UNV-80-86-EDD

Issue Date: 7/20/2021

Test Information

Test Method: LM-79-2019
Report Number: P562741
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-LD4-2LO-40-UNV-80-86-EDD
Description: 2X4 FSR TROFFER WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND .250 CLEAR PC ENVIRON
SIDE LENSES WITH, 80 CRI AND 4000K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 5704.0 lumens
Efficiency: N/A
Efficacy: 121.9 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

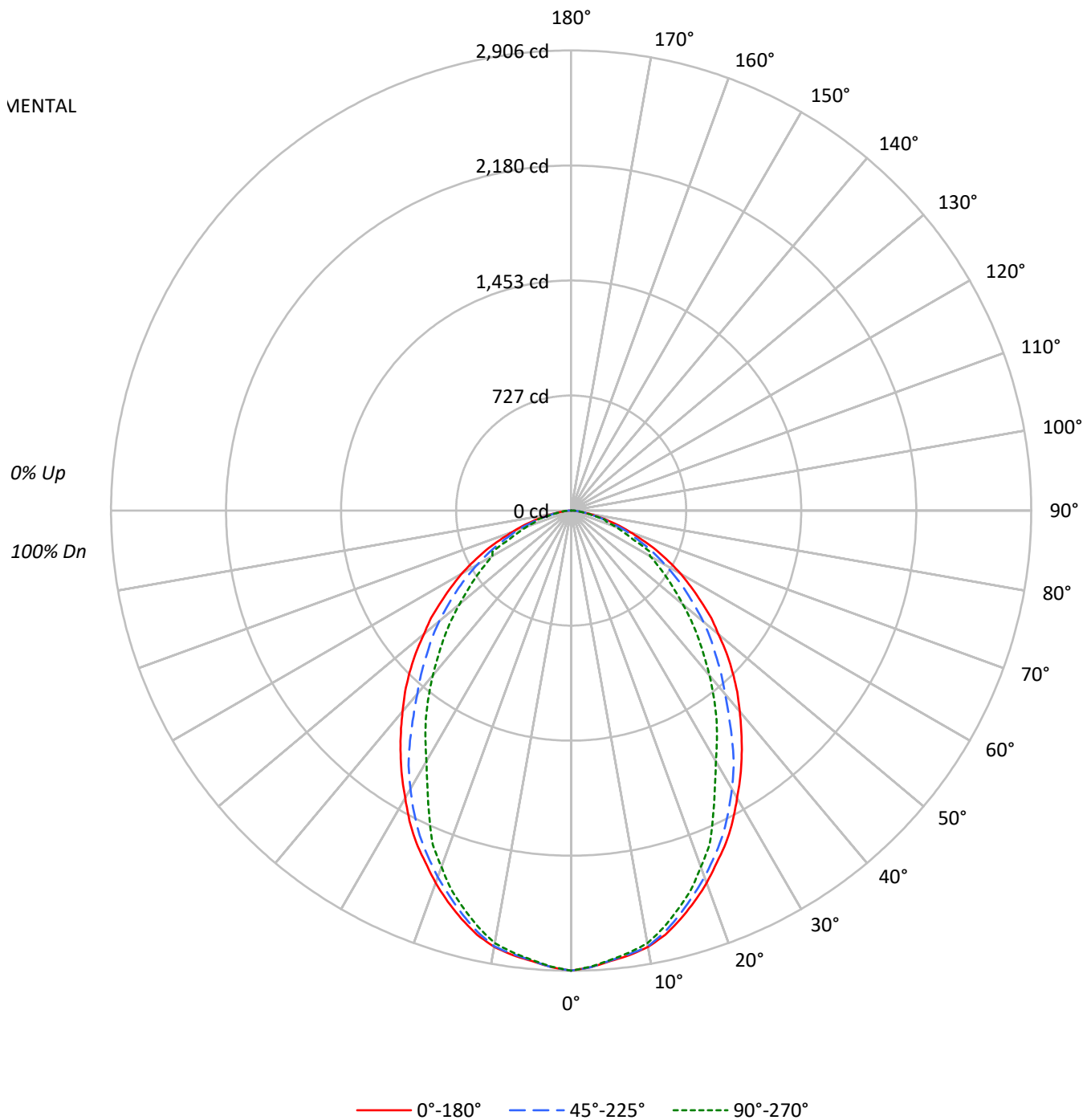
Input Watts (W): 46.8
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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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°	3909	3909	3909
5°	3856	3852	3847
10°	3823	3818	3791
15°	3720	3682	3631
20°	3583	3525	3429
25°	3436	3361	3152
30°	3256	3152	2839
35°	3084	2913	2626
40°	2909	2655	2389
45°	2742	2454	2160
50°	2538	2278	1927
55°	2348	2065	1726
60°	2151	1844	1546
65°	1893	1615	1369
70°	1559	1414	1163
75°	1240	1083	1135
80°	833	781	729
85°	519	622	726

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 2742 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	270.5	4.7
10°-20°	742.3	13.0
20°-30°	1027.6	18.0
30°-40°	1095.7	19.2
40°-50°	999.6	17.5
50°-60°	783.1	13.7
60°-70°	510.4	8.9
70°-80°	226.1	4.0
80°-90°	48.5	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°	2040.4	35.8
0°-40°	3136.1	55.0
0°-60°	4918.9	86.2
0°-90°	5704.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5704.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2906	2906	2906	2906	2906	
5°	2855	2852	2852	2848	2848	271
15°	2670	2670	2644	2617	2607	751
25°	2314	2301	2264	2183	2123	1063
35°	1878	1864	1774	1639	1599	1174
45°	1441	1411	1290	1182	1135	1110
55°	1001	971	880	776	736	898
65°	594	561	507	517	430	586
75°	238	222	208	198	218	256
85°	34	37	40	44	47	47
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2905.5	2905.5	2905.5	2905.5	2905.5
2.5°	2885.4	2885.4	2885.4	2882.0	2882.0
5°	2855.2	2851.8	2851.8	2848.4	2848.4
7.5°	2831.6	2828.3	2824.9	2821.6	2814.8
10°	2798.1	2798.1	2794.7	2777.9	2774.5
12.5°	2744.3	2741.0	2727.5	2704.0	2697.3
15°	2670.4	2670.4	2643.5	2616.7	2606.6
17.5°	2589.8	2586.4	2552.8	2526.0	2512.5
20°	2502.5	2495.7	2462.2	2418.5	2395.0
22.5°	2405.0	2405.0	2364.7	2307.6	2284.1
25°	2314.4	2300.9	2264.0	2183.4	2122.9
27.5°	2210.2	2190.1	2149.8	2035.6	1965.0
30°	2096.0	2085.9	2028.8	1881.0	1827.3
32.5°	1988.5	1971.7	1911.3	1756.8	1713.1
35°	1877.7	1864.2	1773.6	1639.2	1598.9
37.5°	1766.8	1750.0	1635.8	1528.3	1478.0
40°	1656.0	1635.8	1511.6	1414.1	1360.4
42.5°	1551.9	1525.0	1404.1	1299.9	1239.5
45°	1441.0	1410.8	1289.9	1182.4	1135.3
47.5°	1330.2	1303.3	1192.4	1081.6	1027.9
50°	1212.6	1189.1	1088.3	977.5	920.4
52.5°	1115.2	1078.2	980.8	870.0	823.0
55°	1001.0	970.8	880.1	775.9	735.6
57.5°	896.9	866.6	782.6	685.2	651.6
60°	799.4	755.8	685.2	601.3	574.4
62.5°	692.0	658.4	597.9	527.4	561.0
65°	594.5	561.0	507.2	517.3	430.0
67.5°	487.1	470.3	423.2	376.2	362.8
70°	396.4	376.2	359.4	309.0	295.6
72.5°	315.7	295.6	272.1	245.2	235.1
75°	238.5	221.7	208.3	198.2	218.3
77.5°	164.6	157.9	147.8	137.7	134.4
80°	107.5	104.1	100.8	97.4	94.1
82.5°	63.8	63.8	63.8	63.8	63.8
85°	33.6	36.9	40.3	43.7	47.0
87.5°	20.2	20.2	23.5	26.9	30.2
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)