

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: P563126

Luminaire Tested: FSR-24-4-LD4-3HI-40-UNV-80-87-EDD-90

Issue Date: 7/20/2021

Test Information

Test Method: LM-79-2019
Report Number: P563126
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-LD4-3HI-40-UNV-80-87-EDD-90
Description: 2X4 FSR TROFFER WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND .375 CLEAR PC ENVIRONM
SIDE LENSES WITH, 90 CRI AND 4000K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 11426.0 lumens
Efficiency: N/A
Efficacy: 88.2 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

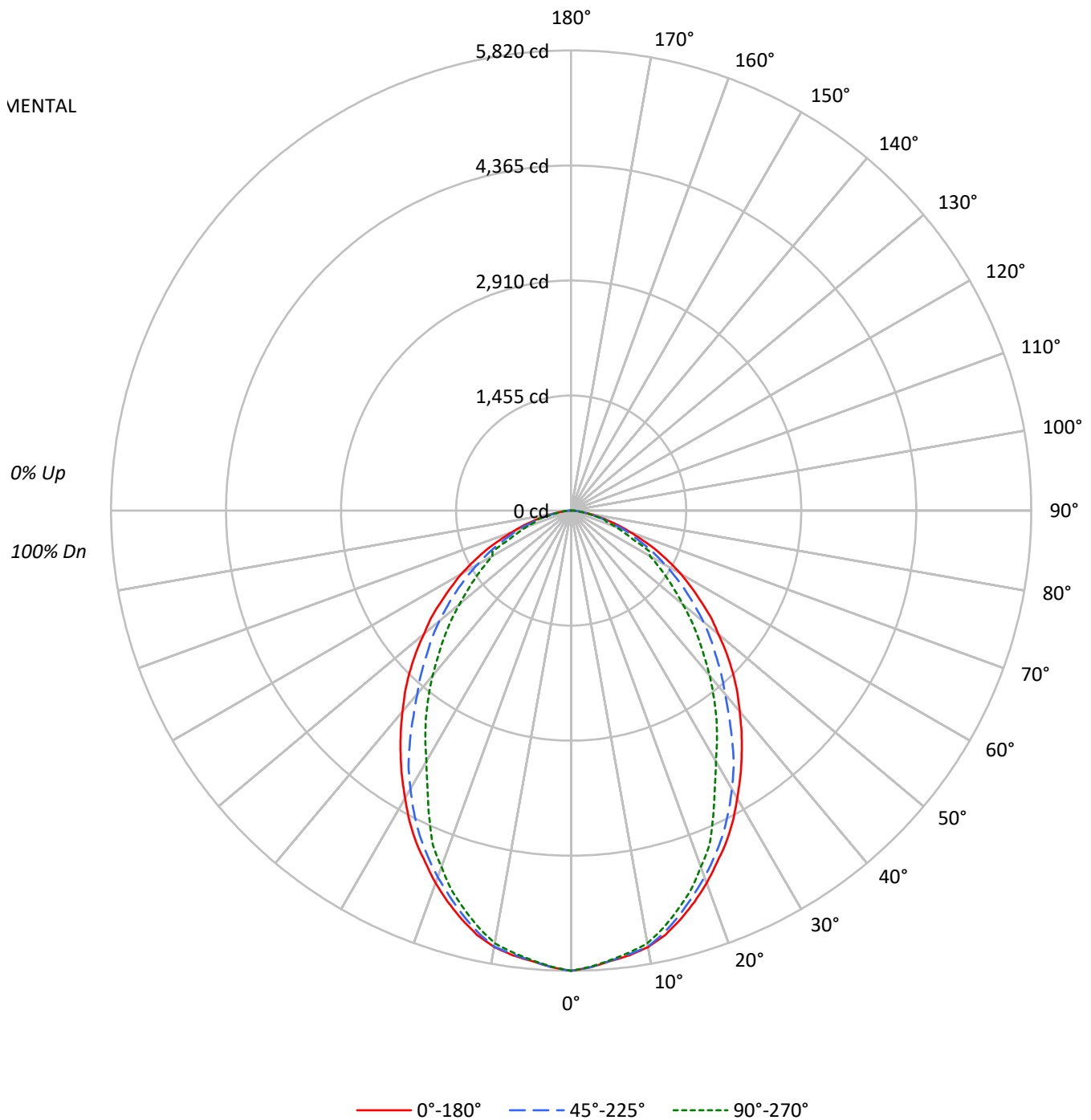
Input Watts (W): 129.6
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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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	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												100																
1	110	106	102	99	108	104	100	97	100	97	94	96	94	91	92	90	89	87												87																
2	101	94	88	83	99	92	87	82	89	84	80	86	82	78	83	79	77	75												75																
3	93	84	77	71	91	82	76	70	79	74	69	77	72	68	74	70	67	65												65																
4	86	75	67	61	84	74	66	61	72	65	60	69	64	59	67	62	58	56												56																
5	80	68	60	54	78	67	59	53	65	58	53	63	57	52	61	56	52	50												50																
6	74	62	53	48	72	61	53	47	59	52	47	57	51	47	56	50	46	44												44																
7	69	56	48	43	67	56	48	42	54	47	42	53	46	42	51	46	42	40												40																
8	65	52	44	38	63	51	44	38	50	43	38	49	42	38	48	42	38	36												36																
9	61	48	40	35	59	47	40	35	46	39	35	45	39	34	44	38	34	33												33																
10	57	44	37	32	56	44	37	32	43	36	32	42	36	32	41	36	32	30												30																

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	7831	7831	7831
5°	7725	7716	7707
10°	7658	7649	7593
15°	7451	7376	7273
20°	7178	7062	6869
25°	6883	6733	6313
30°	6523	6314	5687
35°	6178	5835	5261
40°	5826	5318	4786
45°	5493	4916	4328
50°	5084	4563	3859
55°	4704	4135	3457
60°	4309	3694	3096
65°	3792	3235	2742
70°	3124	2832	2329
75°	2483	2169	2274
80°	1668	1564	1460
85°	1039	1246	1454

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 5493 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	541.8	4.7
10°-20°	1486.9	13.0
20°-30°	2058.5	18.0
30°-40°	2195.0	19.2
40°-50°	2002.4	17.5
50°-60°	1568.8	13.7
60°-70°	1022.4	8.9
70°-80°	453.0	4.0
80°-90°	97.2	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°	4087.2	35.8
0°-40°	6282.1	55.0
0°-60°	9853.3	86.2
0°-90°	11426.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	11426.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	5820	5820	5820	5820	5820	
5°	5719	5713	5713	5706	5706	543
15°	5349	5349	5295	5242	5221	1504
25°	4636	4609	4535	4374	4252	2128
35°	3761	3734	3553	3284	3203	2351
45°	2887	2826	2584	2368	2274	2223
55°	2005	1945	1763	1554	1474	1798
65°	1191	1124	1016	1036	861	1174
75°	478	444	417	397	437	512
85°	67	74	81	88	94	93
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	5820.3	5820.3	5820.3	5820.3	5820.3
2.5°	5779.9	5779.9	5779.9	5773.2	5773.2
5°	5719.3	5712.6	5712.6	5705.9	5705.9
7.5°	5672.2	5665.5	5658.8	5652.0	5638.6
10°	5604.9	5604.9	5598.2	5564.6	5557.8
12.5°	5497.3	5490.5	5463.6	5416.5	5403.1
15°	5349.2	5349.2	5295.4	5241.6	5221.4
17.5°	5187.8	5181.0	5113.7	5059.9	5033.0
20°	5012.8	4999.4	4932.1	4844.6	4797.5
22.5°	4817.7	4817.7	4736.9	4622.6	4575.5
25°	4636.0	4609.1	4535.1	4373.6	4252.5
27.5°	4427.4	4387.1	4306.3	4077.5	3936.2
30°	4198.7	4178.5	4064.1	3768.0	3660.4
32.5°	3983.3	3949.7	3828.6	3519.1	3431.6
35°	3761.3	3734.4	3552.7	3283.6	3202.8
37.5°	3539.3	3505.6	3276.8	3061.5	2960.6
40°	3317.2	3276.8	3027.9	2832.7	2725.1
42.5°	3108.6	3054.8	2812.6	2604.0	2482.9
45°	2886.6	2826.0	2583.8	2368.5	2274.3
47.5°	2664.5	2610.7	2388.7	2166.6	2059.0
50°	2429.0	2381.9	2180.1	1958.0	1843.6
52.5°	2233.9	2159.9	1964.8	1742.7	1648.5
55°	2005.1	1944.6	1762.9	1554.3	1473.6
57.5°	1796.5	1736.0	1567.8	1372.6	1305.4
60°	1601.4	1513.9	1372.6	1204.4	1150.6
62.5°	1386.1	1318.8	1197.7	1056.4	1123.7
65°	1191.0	1123.7	1016.0	1036.2	861.3
67.5°	975.6	942.0	847.8	753.6	726.7
70°	794.0	753.6	720.0	619.0	592.1
72.5°	632.5	592.1	545.0	491.2	471.0
75°	477.7	444.1	417.2	397.0	437.4
77.5°	329.7	316.2	296.1	275.9	269.1
80°	215.3	208.6	201.9	195.1	188.4
82.5°	127.8	127.8	127.8	127.8	127.8
85°	67.3	74.0	80.7	87.5	94.2
87.5°	40.4	40.4	47.1	53.8	60.6
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)