

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: P562672

Luminaire Tested: FSR-24-4-LD4-2LO-35-UNV-80-84-EDD-90

Issue Date: 7/20/2021

Test Information

Test Method: LM-79-2019
Report Number: P562672
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-35-UNV-80-84-EDD-90
Description: 2X4 FSR TROFFER WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND .125 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 3500K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4877.0 lumens
Efficiency: N/A
Efficacy: 104.2 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

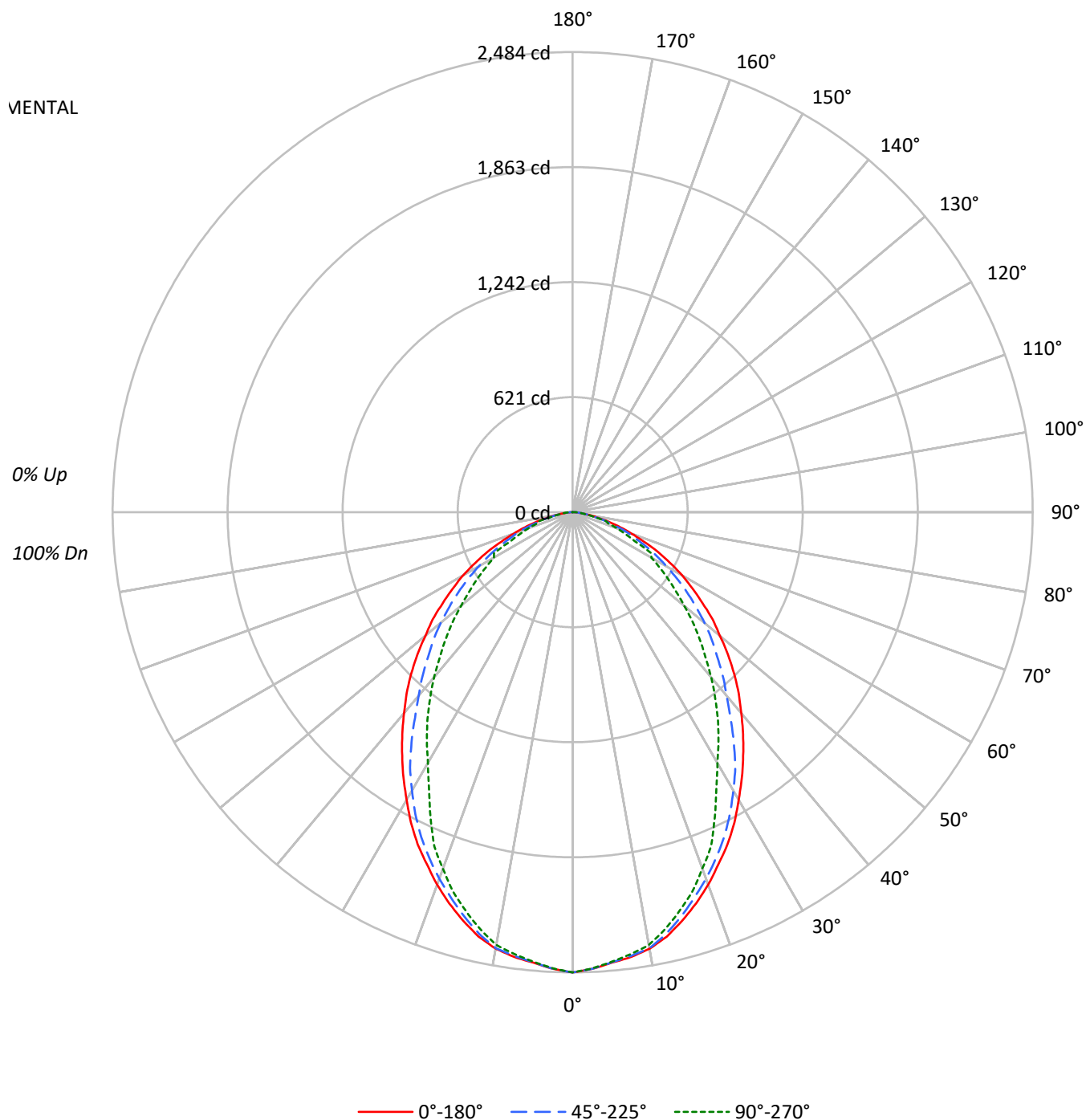
Input Watts (W): 46.8
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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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			
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°	3343	3343	3343
5°	3297	3293	3289
10°	3269	3265	3241
15°	3180	3148	3104
20°	3064	3014	2932
25°	2938	2874	2695
30°	2784	2695	2427
35°	2637	2491	2246
40°	2487	2270	2043
45°	2344	2098	1847
50°	2170	1948	1647
55°	2008	1765	1476
60°	1839	1577	1322
65°	1618	1381	1170
70°	1333	1209	994
75°	1060	926	971
80°	712	668	623
85°	443	533	621

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°

Vertical Angle: 45°

Luminance: 2344 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	231.3	4.7
10°-20°	634.7	13.0
20°-30°	878.6	18.0
30°-40°	936.9	19.2
40°-50°	854.7	17.5
50°-60°	669.6	13.7
60°-70°	436.4	8.9
70°-80°	193.4	4.0
80°-90°	41.5	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°	1744.5	35.8
0°-40°	2681.4	55.0
0°-60°	4205.7	86.2
0°-90°	4877.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4877.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2484	2484	2484	2484	2484	
5°	2441	2438	2438	2436	2436	232
15°	2283	2283	2260	2237	2229	642
25°	1979	1967	1936	1867	1815	908
35°	1605	1594	1516	1402	1367	1004
45°	1232	1206	1103	1011	971	949
55°	856	830	752	663	629	768
65°	508	480	434	442	368	501
75°	204	190	178	169	187	219
85°	29	32	34	37	40	40
90°	0	0	0	0	0	

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2484.3	2484.3	2484.3	2484.3	2484.3
2.5°	2467.0	2467.0	2467.0	2464.2	2464.2
5°	2441.2	2438.3	2438.3	2435.5	2435.5
7.5°	2421.1	2418.2	2415.4	2412.5	2406.7
10°	2392.4	2392.4	2389.5	2375.1	2372.3
12.5°	2346.4	2343.6	2332.1	2312.0	2306.2
15°	2283.2	2283.2	2260.3	2237.3	2228.7
17.5°	2214.3	2211.4	2182.7	2159.7	2148.3
20°	2139.6	2133.9	2105.2	2067.8	2047.7
22.5°	2056.4	2056.4	2021.9	1973.1	1953.0
25°	1978.8	1967.3	1935.7	1866.8	1815.1
27.5°	1889.8	1872.5	1838.1	1740.4	1680.1
30°	1792.1	1783.5	1734.7	1608.3	1562.4
32.5°	1700.2	1685.9	1634.2	1502.1	1464.7
35°	1605.4	1594.0	1516.4	1401.5	1367.1
37.5°	1510.7	1496.3	1398.7	1306.8	1263.7
40°	1415.9	1398.7	1292.4	1209.1	1163.2
42.5°	1326.9	1303.9	1200.5	1111.5	1059.8
45°	1232.1	1206.2	1102.8	1010.9	970.7
47.5°	1137.3	1114.3	1019.6	924.8	878.8
50°	1036.8	1016.7	930.5	835.8	786.9
52.5°	953.5	921.9	838.6	743.8	703.6
55°	855.9	830.0	752.5	663.4	629.0
57.5°	766.8	741.0	669.2	585.9	557.2
60°	683.5	646.2	585.9	514.1	491.1
62.5°	591.6	562.9	511.2	450.9	479.6
65°	508.3	479.6	433.7	442.3	367.6
67.5°	416.4	402.1	361.9	321.7	310.2
70°	338.9	321.7	307.3	264.2	252.7
72.5°	270.0	252.7	232.6	209.7	201.0
75°	203.9	189.6	178.1	169.4	186.7
77.5°	140.7	135.0	126.4	117.8	114.9
80°	91.9	89.0	86.2	83.3	80.4
82.5°	54.6	54.6	54.6	54.6	54.6
85°	28.7	31.6	34.5	37.3	40.2
87.5°	17.2	17.2	20.1	23.0	25.8
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)