

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: P562096

Luminaire Tested: FSR-24-4-LD4-1HI-50-UNV-80-84-EDD-90

Issue Date: 7/20/2021

Test Information

Test Method: LM-79-2019
Report Number: P562096
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-LD4-1HI-50-UNV-80-84-EDD-90
Description: 2X4 FSR TROFFER WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND .125 CLEAR PC ENVIRON
SIDE LENSES WITH, 90 CRI AND 5000K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4277.0 lumens
Efficiency: N/A
Efficacy: 99.0 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

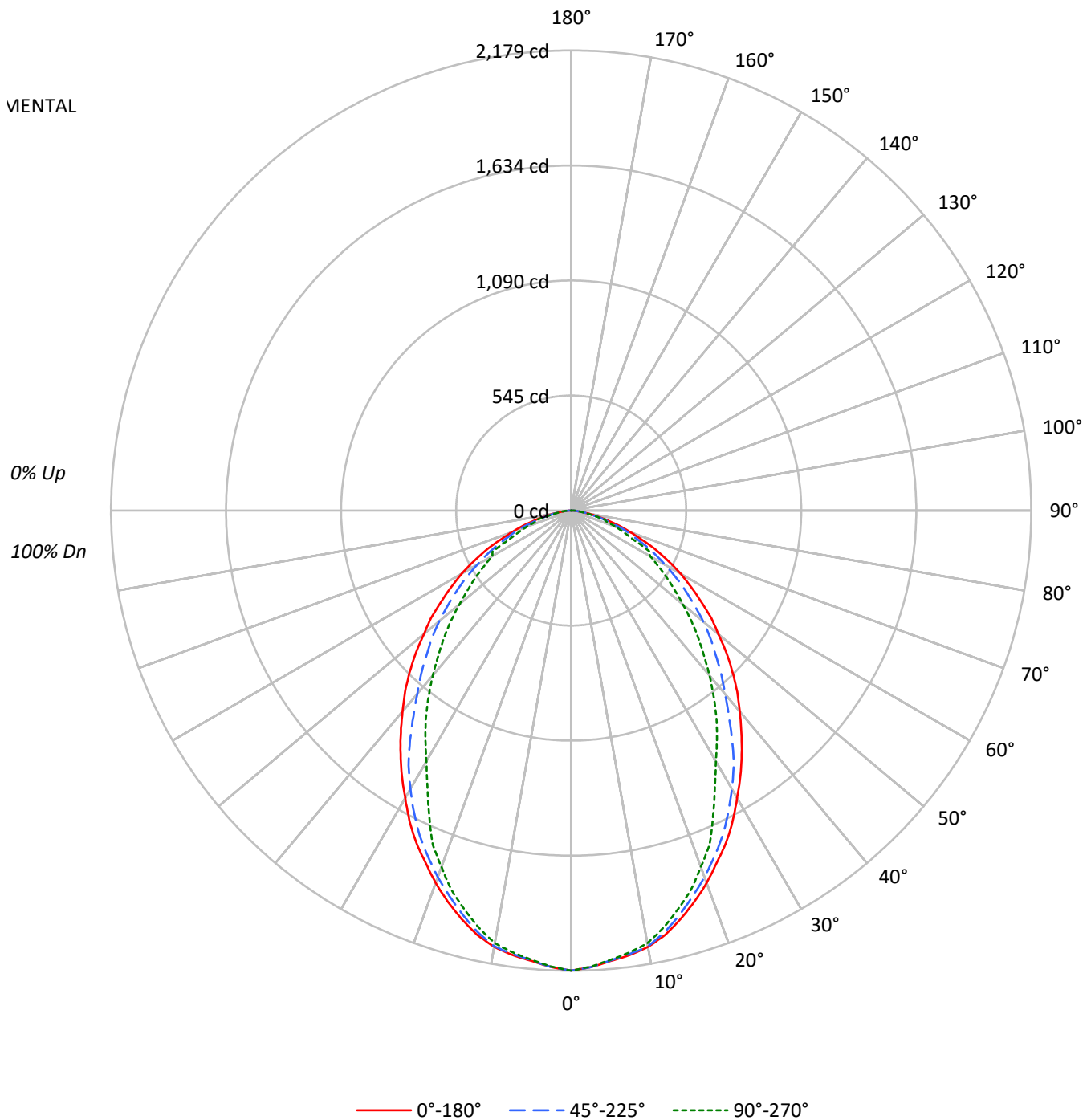
Input Watts (W): 43.2
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Luminous Intensity Polar Plot





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COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20									20									20									20									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	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°	2931	2931	2931
5°	2892	2888	2885
10°	2866	2863	2842
15°	2789	2761	2723
20°	2687	2643	2571
25°	2576	2520	2363
30°	2442	2364	2129
35°	2313	2184	1969
40°	2181	1991	1792
45°	2056	1840	1620
50°	1903	1708	1445
55°	1761	1548	1294
60°	1613	1383	1159
65°	1419	1211	1026
70°	1169	1060	872
75°	930	812	851
80°	625	586	546
85°	389	466	545

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 2056 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	202.8	4.7
10°-20°	556.6	13.0
20°-30°	770.5	18.0
30°-40°	821.6	19.2
40°-50°	749.6	17.5
50°-60°	587.2	13.7
60°-70°	382.7	8.9
70°-80°	169.6	4.0
80°-90°	36.4	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°	1529.9	35.8
0°-40°	2351.5	55.0
0°-60°	3688.3	86.2
0°-90°	4277.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4277.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2179	2179	2179	2179	2179	
5°	2141	2138	2138	2136	2136	203
15°	2002	2002	1982	1962	1954	563
25°	1735	1725	1698	1637	1592	797
35°	1408	1398	1330	1229	1199	880
45°	1080	1058	967	887	851	832
55°	751	728	660	582	552	673
65°	446	421	380	388	322	439
75°	179	166	156	149	164	192
85°	25	28	30	33	35	35
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2178.6	2178.6	2178.6	2178.6	2178.6
2.5°	2163.5	2163.5	2163.5	2161.0	2161.0
5°	2140.9	2138.3	2138.3	2135.8	2135.8
7.5°	2123.2	2120.7	2118.2	2115.7	2110.6
10°	2098.0	2098.0	2095.5	2082.9	2080.4
12.5°	2057.8	2055.2	2045.2	2027.5	2022.5
15°	2002.3	2002.3	1982.2	1962.0	1954.5
17.5°	1941.9	1939.4	1914.2	1894.0	1884.0
20°	1876.4	1871.4	1846.2	1813.4	1795.8
22.5°	1803.4	1803.4	1773.1	1730.3	1712.7
25°	1735.4	1725.3	1697.6	1637.1	1591.8
27.5°	1657.3	1642.2	1611.9	1526.3	1473.4
30°	1571.6	1564.1	1521.3	1410.5	1370.2
32.5°	1491.1	1478.5	1433.1	1317.3	1284.5
35°	1407.9	1397.9	1329.9	1229.1	1198.9
37.5°	1324.8	1312.2	1226.6	1146.0	1108.2
40°	1241.7	1226.6	1133.4	1060.4	1020.1
42.5°	1163.6	1143.5	1052.8	974.7	929.4
45°	1080.5	1057.8	967.2	886.6	851.3
47.5°	997.4	977.2	894.1	811.0	770.7
50°	909.2	891.6	816.0	732.9	690.1
52.5°	836.2	808.5	735.5	652.3	617.1
55°	750.6	727.9	659.9	581.8	551.6
57.5°	672.5	649.8	586.8	513.8	488.6
60°	599.4	566.7	513.8	450.8	430.7
62.5°	518.8	493.7	448.3	395.4	420.6
65°	445.8	420.6	380.3	387.9	322.4
67.5°	365.2	352.6	317.4	282.1	272.0
70°	297.2	282.1	269.5	231.7	221.6
72.5°	236.8	221.6	204.0	183.9	176.3
75°	178.8	166.2	156.2	148.6	163.7
77.5°	123.4	118.4	110.8	103.3	100.7
80°	80.6	78.1	75.6	73.0	70.5
82.5°	47.9	47.9	47.9	47.9	47.9
85°	25.2	27.7	30.2	32.7	35.3
87.5°	15.1	15.1	17.6	20.1	22.7
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)