

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: P562422

Luminaire Tested: FSR-24-4-LD4-1STD-50-UNV-80-87-EDD-90

Issue Date: 7/20/2021

Test Information

Test Method: LM-79-2019
Report Number: P562422
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-LD4-1STD-50-UNV-80-87-EDD-90
Description: 2X4 FSR TROFFER WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND .375 CLEAR PC ENVIRON
SIDE LENSES WITH, 90 CRI AND 5000K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3270.0 lumens
Efficiency: N/A
Efficacy: 98.2 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

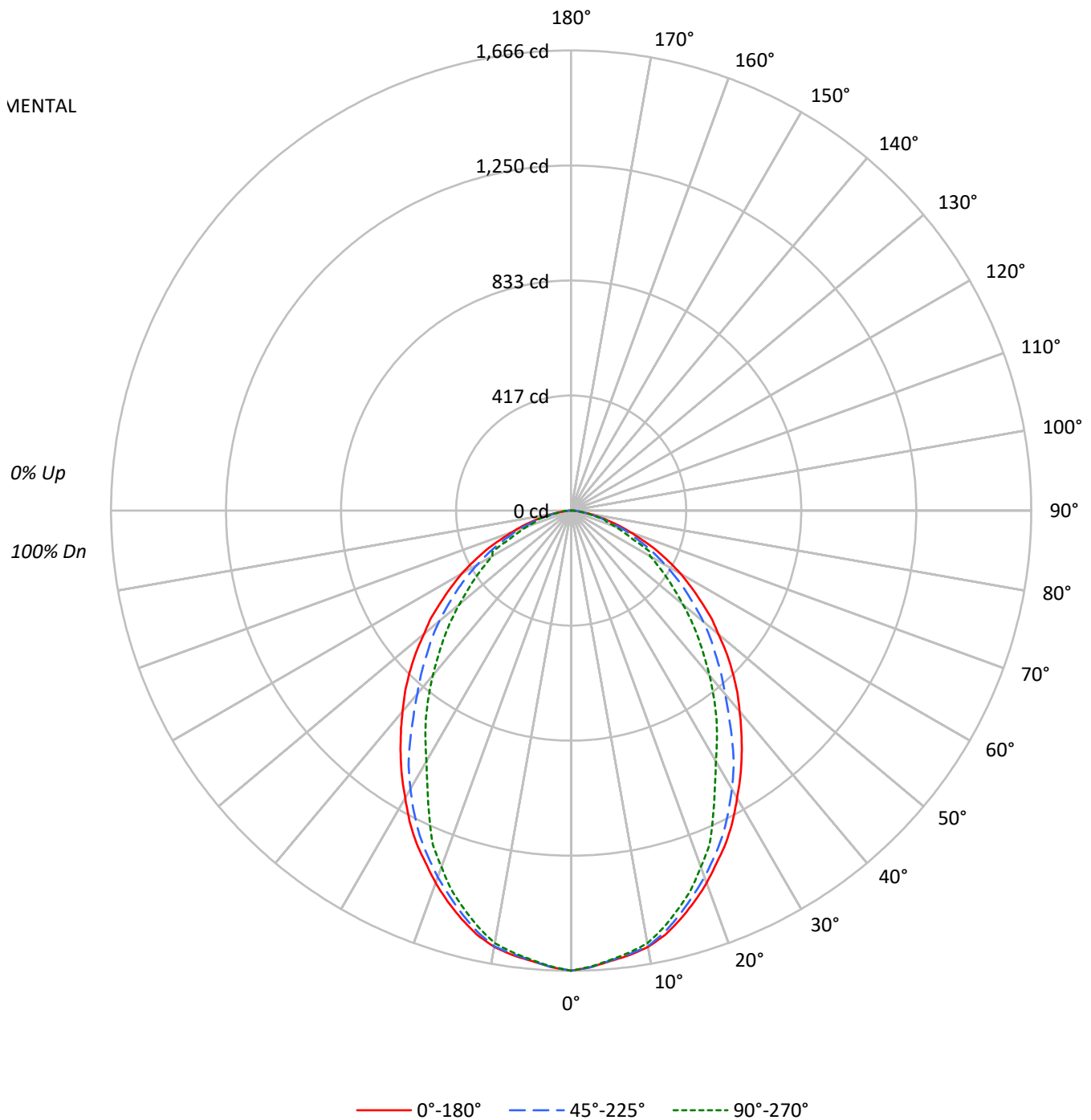
Input Watts (W): 33.3
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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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	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°	2241	2241	2241
5°	2211	2208	2206
10°	2192	2189	2173
15°	2132	2111	2081
20°	2054	2021	1966
25°	1970	1927	1807
30°	1867	1807	1628
35°	1768	1670	1506
40°	1667	1522	1370
45°	1572	1407	1239
50°	1455	1306	1104
55°	1346	1183	989
60°	1233	1057	886
65°	1085	926	785
70°	894	810	667
75°	711	621	651
80°	477	448	418
85°	298	357	417

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 1572 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	155.1	4.7
10°-20°	425.5	13.0
20°-30°	589.1	18.0
30°-40°	628.2	19.2
40°-50°	573.1	17.5
50°-60°	449.0	13.7
60°-70°	292.6	8.9
70°-80°	129.6	4.0
80°-90°	27.8	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°	1169.7	35.8
0°-40°	1797.9	55.0
0°-60°	2819.9	86.2
0°-90°	3270.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3270.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1666	1666	1666	1666	1666	
5°	1637	1635	1635	1633	1633	155
15°	1531	1531	1516	1500	1494	430
25°	1327	1319	1298	1252	1217	609
35°	1076	1069	1017	940	917	673
45°	826	809	740	678	651	636
55°	574	556	504	445	422	515
65°	341	322	291	297	246	336
75°	137	127	119	114	125	147
85°	19	21	23	25	27	27
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1665.7	1665.7	1665.7	1665.7	1665.7
2.5°	1654.1	1654.1	1654.1	1652.2	1652.2
5°	1636.8	1634.9	1634.9	1633.0	1633.0
7.5°	1623.3	1621.4	1619.5	1617.6	1613.7
10°	1604.1	1604.1	1602.1	1592.5	1590.6
12.5°	1573.3	1571.3	1563.6	1550.2	1546.3
15°	1530.9	1530.9	1515.5	1500.1	1494.3
17.5°	1484.7	1482.8	1463.5	1448.1	1440.4
20°	1434.6	1430.8	1411.5	1386.5	1373.0
22.5°	1378.8	1378.8	1355.7	1322.9	1309.4
25°	1326.8	1319.1	1297.9	1251.7	1217.0
27.5°	1267.1	1255.5	1232.4	1166.9	1126.5
30°	1201.6	1195.8	1163.1	1078.4	1047.6
32.5°	1140.0	1130.4	1095.7	1007.1	982.1
35°	1076.4	1068.7	1016.7	939.7	916.6
37.5°	1012.9	1003.3	937.8	876.2	847.3
40°	949.3	937.8	866.5	810.7	779.9
42.5°	889.7	874.2	804.9	745.2	710.6
45°	826.1	808.8	739.5	677.8	650.9
47.5°	762.6	747.2	683.6	620.1	589.3
50°	695.2	681.7	623.9	560.4	527.6
52.5°	639.3	618.1	562.3	498.7	471.8
55°	573.8	556.5	504.5	444.8	421.7
57.5°	514.2	496.8	448.7	392.8	373.6
60°	458.3	433.3	392.8	344.7	329.3
62.5°	396.7	377.4	342.8	302.3	321.6
65°	340.8	321.6	290.8	296.6	246.5
67.5°	279.2	269.6	242.6	215.7	208.0
70°	227.2	215.7	206.0	177.2	169.5
72.5°	181.0	169.5	156.0	140.6	134.8
75°	136.7	127.1	119.4	113.6	125.2
77.5°	94.4	90.5	84.7	79.0	77.0
80°	61.6	59.7	57.8	55.8	53.9
82.5°	36.6	36.6	36.6	36.6	36.6
85°	19.3	21.2	23.1	25.0	27.0
87.5°	11.6	11.6	13.5	15.4	17.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)