

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: P561974

Luminaire Tested: FSR-24-4-LD4-1HI-35-UNV-80-87-EDD-90

Issue Date: 7/20/2021

Test Information

Test Method: LM-79-2019
Report Number: P561974
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-35-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 3500K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3755.0 lumens
Efficiency: N/A
Efficacy: 86.9 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

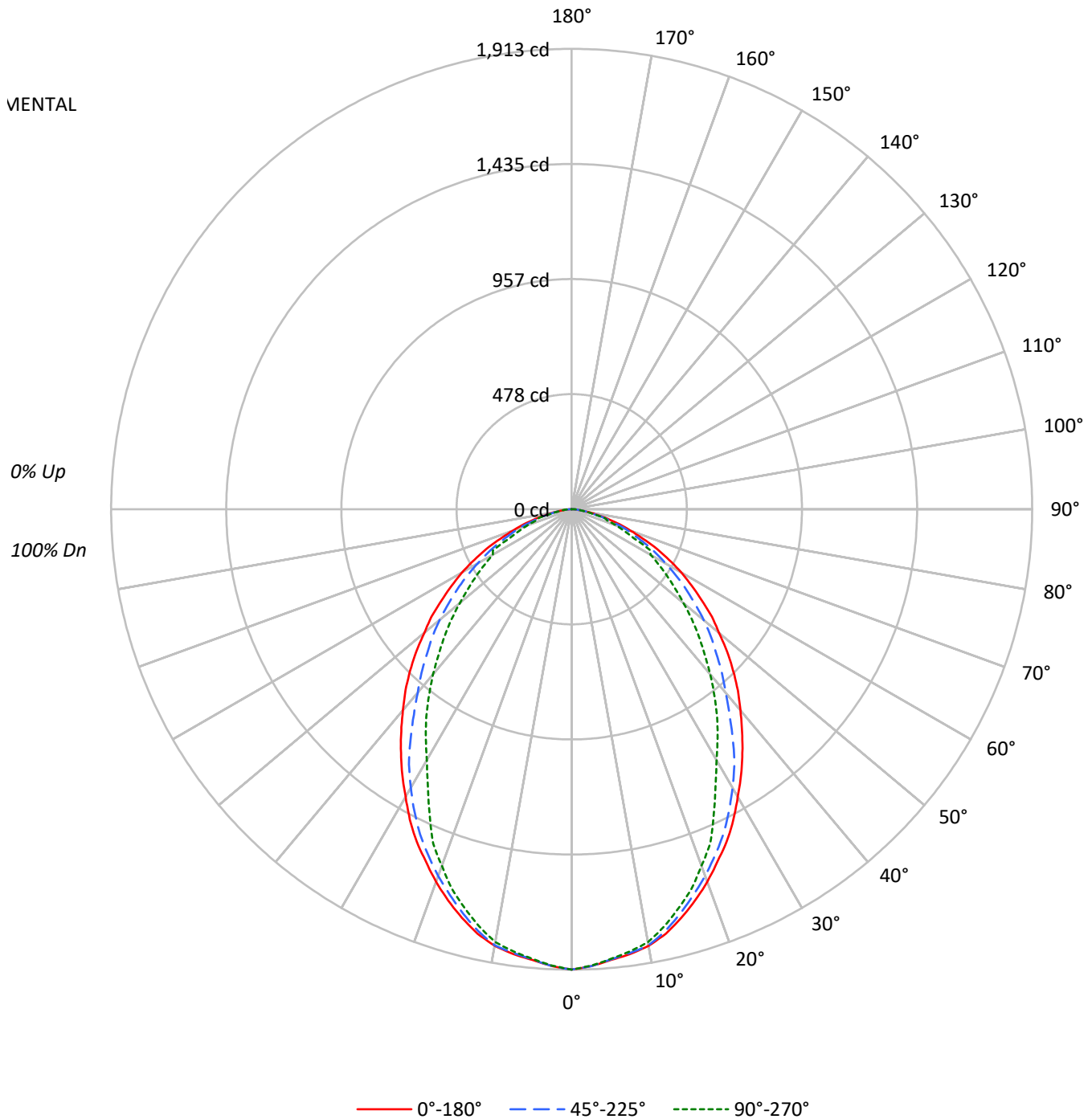
Input Watts (W): 43.2
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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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	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°	2574	2574	2574
5°	2539	2536	2533
10°	2517	2514	2495
15°	2449	2424	2390
20°	2359	2321	2257
25°	2262	2213	2075
30°	2144	2075	1869
35°	2030	1918	1729
40°	1915	1748	1573
45°	1805	1616	1422
50°	1671	1500	1268
55°	1546	1359	1136
60°	1416	1214	1017
65°	1246	1063	901
70°	1026	931	766
75°	816	713	747
80°	549	514	480
85°	341	409	479

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 1805 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	178.1	4.7
10°-20°	488.6	13.0
20°-30°	676.5	18.0
30°-40°	721.3	19.2
40°-50°	658.1	17.5
50°-60°	515.6	13.7
60°-70°	336.0	8.9
70°-80°	148.9	4.0
80°-90°	32.0	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°	1343.2	35.8
0°-40°	2064.5	55.0
0°-60°	3238.2	86.2
0°-90°	3755.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3755.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1913	1913	1913	1913	1913	
5°	1880	1877	1877	1875	1875	178
15°	1758	1758	1740	1723	1716	494
25°	1524	1515	1490	1437	1398	699
35°	1236	1227	1168	1079	1053	773
45°	949	929	849	778	747	731
55°	659	639	579	511	484	591
65°	391	369	334	340	283	386
75°	157	146	137	130	144	168
85°	22	24	26	29	31	31
90°	0	0	0	0	0	

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1912.7	1912.7	1912.7	1912.7	1912.7
2.5°	1899.5	1899.5	1899.5	1897.3	1897.3
5°	1879.6	1877.4	1877.4	1875.2	1875.2
7.5°	1864.1	1861.9	1859.7	1857.5	1853.0
10°	1842.0	1842.0	1839.8	1828.7	1826.5
12.5°	1806.6	1804.4	1795.5	1780.1	1775.6
15°	1758.0	1758.0	1740.3	1722.6	1715.9
17.5°	1704.9	1702.7	1680.6	1662.9	1654.0
20°	1647.4	1643.0	1620.9	1592.1	1576.6
22.5°	1583.3	1583.3	1556.7	1519.1	1503.7
25°	1523.6	1514.7	1490.4	1437.3	1397.5
27.5°	1455.0	1441.7	1415.2	1340.0	1293.6
30°	1379.8	1373.2	1335.6	1238.3	1202.9
32.5°	1309.1	1298.0	1258.2	1156.5	1127.7
35°	1236.1	1227.3	1167.5	1079.1	1052.6
37.5°	1163.1	1152.1	1076.9	1006.1	973.0
40°	1090.2	1076.9	995.1	930.9	895.6
42.5°	1021.6	1003.9	924.3	855.8	816.0
45°	948.6	928.7	849.1	778.4	747.4
47.5°	875.7	858.0	785.0	712.0	676.6
50°	798.3	782.8	716.5	643.5	605.9
52.5°	734.1	709.8	645.7	572.7	541.8
55°	659.0	639.1	579.4	510.8	484.3
57.5°	590.4	570.5	515.2	451.1	429.0
60°	526.3	497.5	451.1	395.8	378.1
62.5°	455.5	433.4	393.6	347.2	369.3
65°	391.4	369.3	333.9	340.5	283.0
67.5°	320.6	309.6	278.6	247.7	238.8
70°	260.9	247.7	236.6	203.4	194.6
72.5°	207.9	194.6	179.1	161.4	154.8
75°	157.0	145.9	137.1	130.5	143.7
77.5°	108.4	103.9	97.3	90.7	88.5
80°	70.8	68.5	66.3	64.1	61.9
82.5°	42.0	42.0	42.0	42.0	42.0
85°	22.1	24.3	26.5	28.7	31.0
87.5°	13.3	13.3	15.5	17.7	19.9
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)