

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: P562684

Luminaire Tested: FSR-24-4-LD4-2LO-35-UNV-80-96-EDD-90

Issue Date: 7/20/2021

Test Information

Test Method: LM-79-2019
Report Number: P562684
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-80-96-EDD-90
Description: 2X4 FSR TROFFER WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND .250 CLEAR TEMPERED G ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 3500K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4834.0 lumens
Efficiency: N/A
Efficacy: 103.3 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

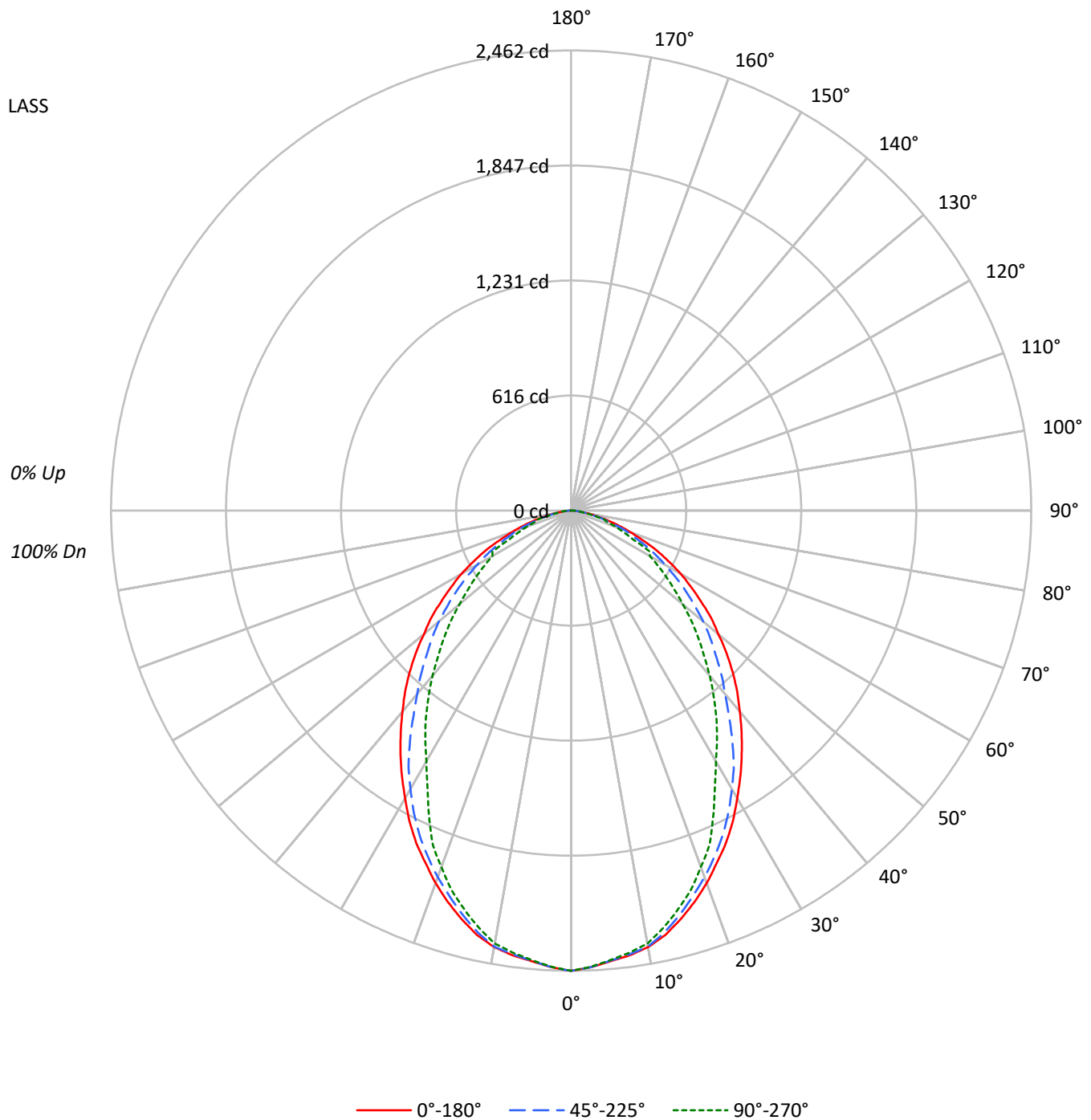
Input Watts (W): 46.8
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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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									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°	3313	3313	3313
5°	3268	3264	3260
10°	3240	3236	3213
15°	3152	3121	3077
20°	3037	2988	2906
25°	2912	2848	2671
30°	2760	2671	2406
35°	2614	2469	2226
40°	2465	2250	2025
45°	2324	2080	1831
50°	2151	1931	1633
55°	1990	1749	1462
60°	1823	1563	1310
65°	1604	1368	1160
70°	1321	1198	985
75°	1051	918	962
80°	706	662	618
85°	440	528	616

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 2324 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	229.2	4.7
10°-20°	629.1	13.0
20°-30°	870.9	18.0
30°-40°	928.6	19.2
40°-50°	847.2	17.5
50°-60°	663.7	13.7
60°-70°	432.6	8.9
70°-80°	191.7	4.0
80°-90°	41.2	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°	1729.2	35.8
0°-40°	2657.8	55.0
0°-60°	4168.6	86.2
0°-90°	4834.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4834.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2462	2462	2462	2462	2462	
5°	2420	2417	2417	2414	2414	230
15°	2263	2263	2240	2218	2209	636
25°	1961	1950	1919	1850	1799	900
35°	1591	1580	1503	1389	1355	995
45°	1221	1196	1093	1002	962	941
55°	848	823	746	658	623	761
65°	504	475	430	438	364	497
75°	202	188	176	168	185	217
85°	28	31	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°	2462.4	2462.4	2462.4	2462.4	2462.4
2.5°	2445.3	2445.3	2445.3	2442.4	2442.4
5°	2419.7	2416.8	2416.8	2414.0	2414.0
7.5°	2399.7	2396.9	2394.1	2391.2	2385.5
10°	2371.3	2371.3	2368.4	2354.2	2351.4
12.5°	2325.7	2322.9	2311.5	2291.6	2285.9
15°	2263.1	2263.1	2240.3	2217.6	2209.0
17.5°	2194.8	2191.9	2163.5	2140.7	2129.3
20°	2120.8	2115.1	2086.6	2049.6	2029.7
22.5°	2038.2	2038.2	2004.1	1955.7	1935.7
25°	1961.4	1950.0	1918.7	1850.3	1799.1
27.5°	1873.1	1856.0	1821.9	1725.1	1665.3
30°	1776.3	1767.8	1719.4	1594.1	1548.6
32.5°	1685.2	1671.0	1619.8	1488.8	1451.8
35°	1591.3	1579.9	1503.0	1389.2	1355.0
37.5°	1497.4	1483.1	1386.3	1295.2	1252.5
40°	1403.4	1386.3	1281.0	1198.5	1152.9
42.5°	1315.2	1292.4	1189.9	1101.7	1050.4
45°	1221.2	1195.6	1093.1	1002.0	962.2
47.5°	1127.3	1104.5	1010.6	916.6	871.1
50°	1027.7	1007.7	922.3	828.4	780.0
52.5°	945.1	913.8	831.2	737.3	697.4
55°	848.3	822.7	745.8	657.6	623.4
57.5°	760.1	734.4	663.3	580.7	552.3
60°	677.5	640.5	580.7	509.6	486.8
62.5°	586.4	557.9	506.7	446.9	475.4
65°	503.9	475.4	429.8	438.4	364.4
67.5°	412.8	398.5	358.7	318.8	307.4
70°	335.9	318.8	304.6	261.9	250.5
72.5°	267.6	250.5	230.6	207.8	199.3
75°	202.1	187.9	176.5	168.0	185.0
77.5°	139.5	133.8	125.3	116.7	113.9
80°	91.1	88.2	85.4	82.6	79.7
82.5°	54.1	54.1	54.1	54.1	54.1
85°	28.5	31.3	34.2	37.0	39.9
87.5°	17.1	17.1	19.9	22.8	25.6
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)