

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: P562868

Luminaire Tested: FSR-24-4-LD4-2STD-35-UNV-80-86-EDD-90

Issue Date: 7/20/2021

Test Information

Test Method: LM-79-2019
Report Number: P562868
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-LD4-2STD-35-UNV-80-86-EDD-90
Description: 2X4 FSR TROFFER WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND .250 CLEAR PC ENVIRON
SIDE LENSES WITH, 90 CRI AND 3500K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 6329.0 lumens
Efficiency: N/A
Efficacy: 95.0 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

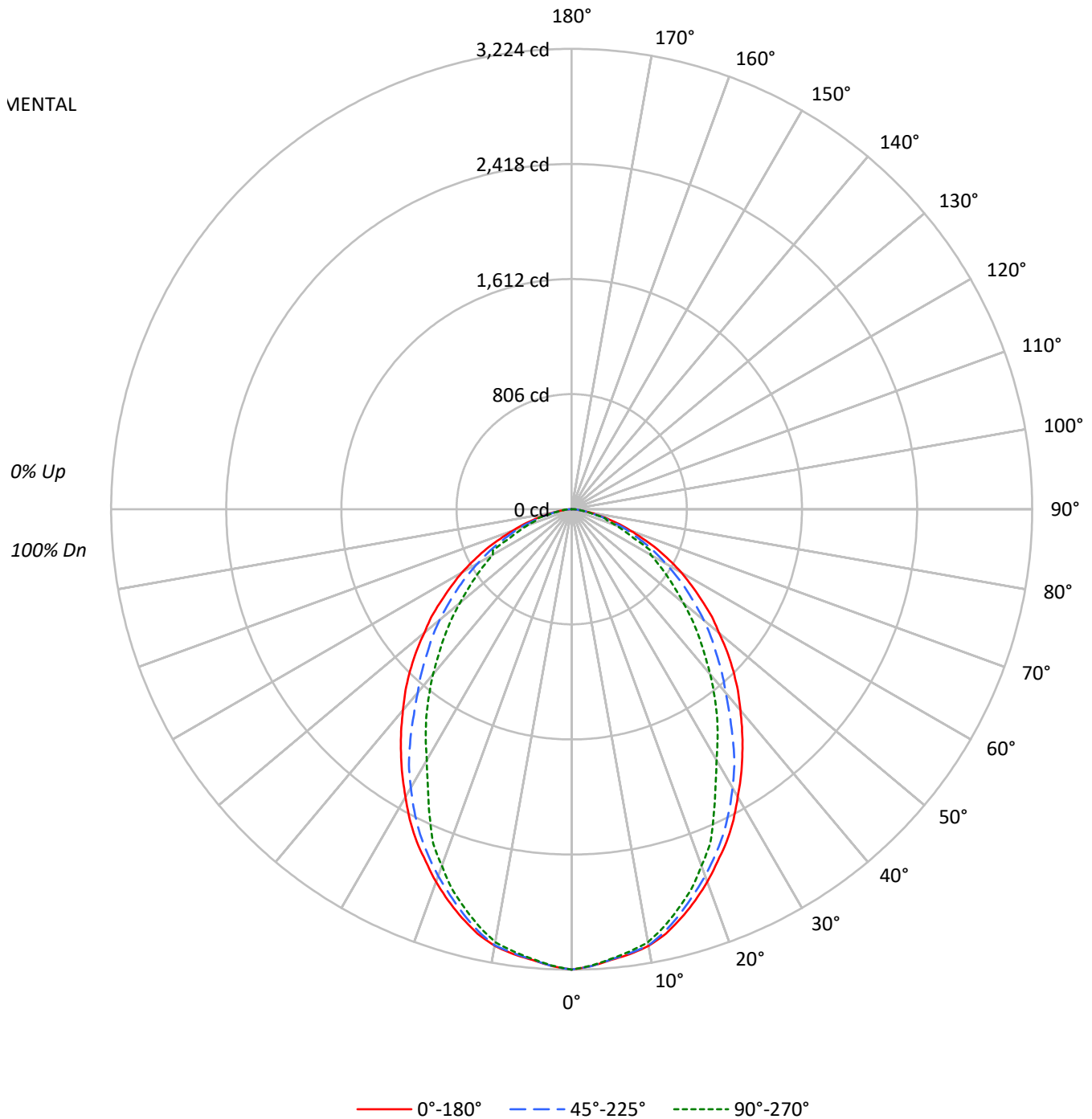
Input Watts (W): 66.6
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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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°	4338	4338	4338
5°	4279	4274	4269
10°	4242	4237	4206
15°	4127	4086	4029
20°	3976	3912	3805
25°	3812	3729	3497
30°	3613	3497	3150
35°	3422	3232	2914
40°	3227	2946	2651
45°	3042	2723	2397
50°	2816	2528	2138
55°	2605	2291	1915
60°	2387	2046	1715
65°	2100	1792	1519
70°	1730	1569	1290
75°	1376	1201	1260
80°	924	866	809
85°	576	690	806

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 3042 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	300.1	4.7
10°-20°	823.6	13.0
20°-30°	1140.2	18.0
30°-40°	1215.8	19.2
40°-50°	1109.2	17.5
50°-60°	869.0	13.7
60°-70°	566.3	8.9
70°-80°	250.9	4.0
80°-90°	53.9	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°	2263.9	35.8
0°-40°	3479.7	55.0
0°-60°	5457.9	86.2
0°-90°	6329.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	6329.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	3224	3224	3224	3224	3224	
5°	3168	3164	3164	3160	3160	301
15°	2963	2963	2933	2903	2892	833
25°	2568	2553	2512	2423	2356	1179
35°	2083	2068	1968	1819	1774	1303
45°	1599	1565	1431	1312	1260	1232
55°	1111	1077	976	861	816	996
65°	660	622	563	574	477	650
75°	265	246	231	220	242	284
85°	37	41	45	48	52	52
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	3223.9	3223.9	3223.9	3223.9	3223.9
2.5°	3201.5	3201.5	3201.5	3197.8	3197.8
5°	3168.0	3164.3	3164.3	3160.5	3160.5
7.5°	3141.9	3138.2	3134.5	3130.7	3123.3
10°	3104.6	3104.6	3100.9	3082.3	3078.6
12.5°	3045.0	3041.3	3026.4	3000.3	2992.8
15°	2963.0	2963.0	2933.2	2903.4	2892.2
17.5°	2873.6	2869.8	2832.6	2802.8	2787.8
20°	2776.7	2769.2	2731.9	2683.5	2657.4
22.5°	2668.6	2668.6	2623.9	2560.5	2534.4
25°	2567.9	2553.0	2512.0	2422.6	2355.5
27.5°	2452.4	2430.0	2385.3	2258.6	2180.3
30°	2325.7	2314.5	2251.1	2087.2	2027.5
32.5°	2206.4	2187.8	2120.7	1949.3	1900.8
35°	2083.4	2068.5	1967.9	1818.8	1774.1
37.5°	1960.4	1941.8	1815.1	1695.8	1639.9
40°	1837.4	1815.1	1677.2	1569.1	1509.5
42.5°	1721.9	1692.1	1557.9	1442.4	1375.3
45°	1598.9	1565.4	1431.2	1311.9	1259.7
47.5°	1475.9	1446.1	1323.1	1200.1	1140.5
50°	1345.5	1319.4	1207.6	1084.6	1021.2
52.5°	1237.4	1196.4	1088.3	965.3	913.1
55°	1110.7	1077.1	976.5	861.0	816.2
57.5°	995.1	961.6	868.4	760.3	723.0
60°	887.0	838.6	760.3	667.1	637.3
62.5°	767.8	730.5	663.4	585.1	622.4
65°	659.7	622.4	562.8	574.0	477.1
67.5°	540.4	521.8	469.6	417.4	402.5
70°	439.8	417.4	398.8	342.9	328.0
72.5°	350.3	328.0	301.9	272.1	260.9
75°	264.6	246.0	231.1	219.9	242.3
77.5°	182.6	175.2	164.0	152.8	149.1
80°	119.3	115.5	111.8	108.1	104.4
82.5°	70.8	70.8	70.8	70.8	70.8
85°	37.3	41.0	44.7	48.5	52.2
87.5°	22.4	22.4	26.1	29.8	33.5
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)