

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: P562942

Luminaire Tested: FSR-24-4-LD4-2STD-40-UNV-80-97-EDD-90

Issue Date: 7/20/2021

Test Information

Test Method: LM-79-2019
Report Number: P562942
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-40-UNV-80-97-EDD-90
Description: 2X4 FSR TROFFER WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND .375 CLEAR TEMPERED G ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 4000K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 6330.0 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

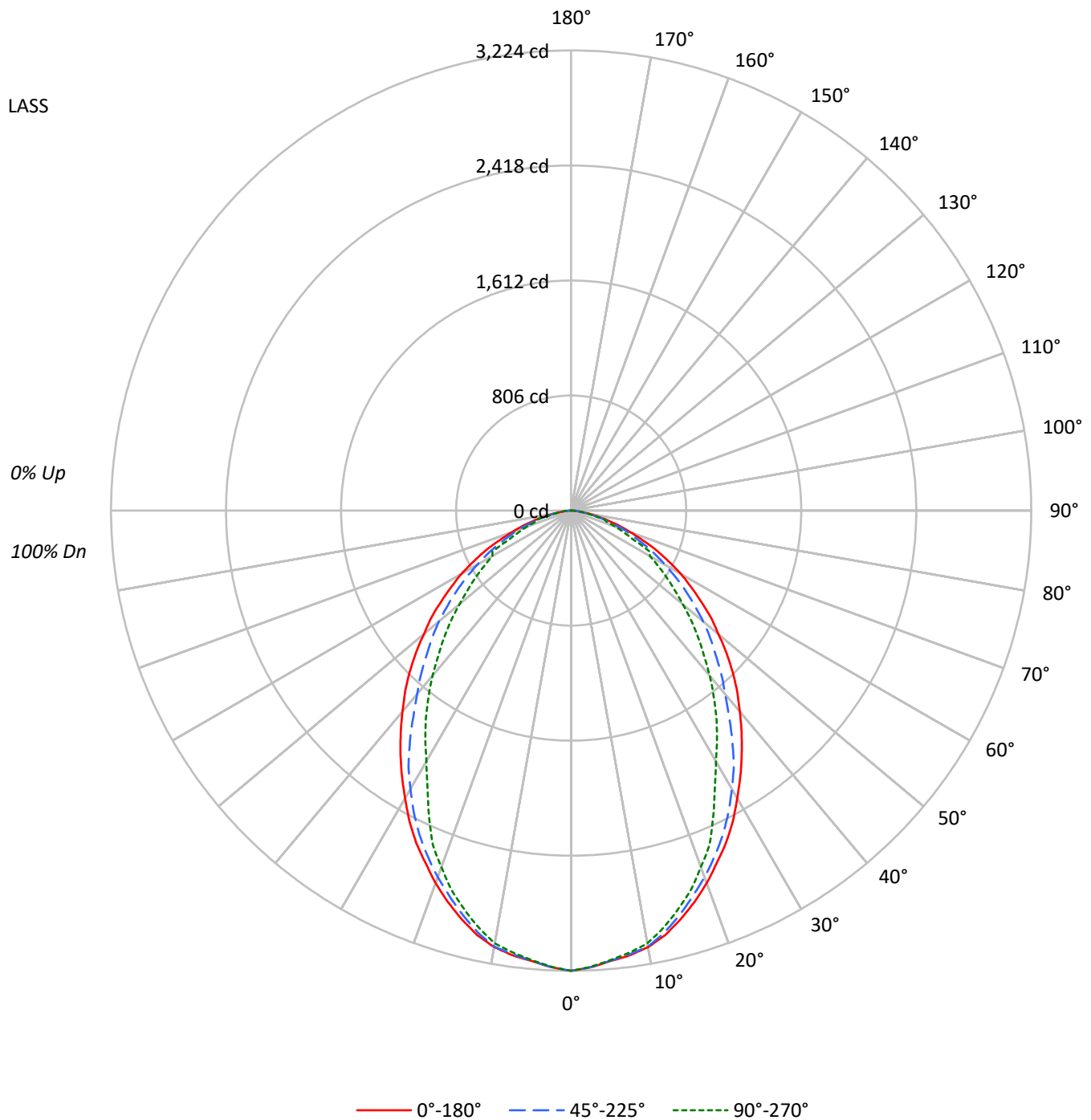
Input Watts (W): 66.6
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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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	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	4207
15°	4128	4087	4029
20°	3976	3912	3806
25°	3813	3730	3498
30°	3614	3498	3150
35°	3423	3233	2915
40°	3228	2946	2652
45°	3043	2724	2397
50°	2817	2528	2138
55°	2606	2291	1915
60°	2387	2046	1715
65°	2101	1792	1519
70°	1731	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: 3043 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	300.2	4.7
10°-20°	823.7	13.0
20°-30°	1140.4	18.0
30°-40°	1216.0	19.2
40°-50°	1109.3	17.5
50°-60°	869.1	13.7
60°-70°	566.4	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°	2264.3	35.8
0°-40°	3480.3	55.0
0°-60°	5458.7	86.2
0°-90°	6330.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	6330.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	3224	3224	3224	3224	3224	
5°	3168	3165	3165	3161	3161	301
15°	2964	2964	2934	2904	2893	833
25°	2568	2553	2512	2423	2356	1179
35°	2084	2069	1968	1819	1774	1303
45°	1599	1566	1431	1312	1260	1232
55°	1111	1077	977	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°	3224.4	3224.4	3224.4	3224.4	3224.4
2.5°	3202.1	3202.1	3202.1	3198.3	3198.3
5°	3168.5	3164.8	3164.8	3161.0	3161.0
7.5°	3142.4	3138.7	3135.0	3131.2	3123.8
10°	3105.1	3105.1	3101.4	3082.8	3079.0
12.5°	3045.5	3041.8	3026.9	3000.8	2993.3
15°	2963.5	2963.5	2933.7	2903.8	2892.7
17.5°	2874.0	2870.3	2833.0	2803.2	2788.3
20°	2777.1	2769.6	2732.4	2683.9	2657.8
22.5°	2669.0	2669.0	2624.3	2560.9	2534.8
25°	2568.4	2553.4	2512.4	2423.0	2355.9
27.5°	2452.8	2430.4	2385.7	2259.0	2180.7
30°	2326.1	2314.9	2251.5	2087.5	2027.8
32.5°	2206.8	2188.1	2121.0	1949.6	1901.1
35°	2083.8	2068.8	1968.2	1819.1	1774.4
37.5°	1960.7	1942.1	1815.4	1696.1	1640.2
40°	1837.7	1815.4	1677.4	1569.3	1509.7
42.5°	1722.2	1692.4	1558.2	1442.6	1375.5
45°	1599.2	1565.6	1431.4	1312.1	1259.9
47.5°	1476.1	1446.3	1323.3	1200.3	1140.7
50°	1345.7	1319.6	1207.8	1084.7	1021.4
52.5°	1237.6	1196.6	1088.5	965.5	913.3
55°	1110.8	1077.3	976.6	861.1	816.4
57.5°	995.3	961.7	868.5	760.4	723.2
60°	887.2	838.7	760.4	667.2	637.4
62.5°	767.9	730.6	663.5	585.2	622.5
65°	659.8	622.5	562.9	574.1	477.1
67.5°	540.5	521.9	469.7	417.5	402.6
70°	439.9	417.5	398.9	342.9	328.0
72.5°	350.4	328.0	301.9	272.1	260.9
75°	264.7	246.0	231.1	219.9	242.3
77.5°	182.7	175.2	164.0	152.8	149.1
80°	119.3	115.6	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)