

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: P590042

Luminaire Tested: FSR-24-2-LD4-1STD-35-UNV-80-94-EDD

Issue Date: 12/8/2021

Test Information

Test Method: LM-79-2019
Report Number: P590042
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2102-135-1)
Test Lab: INNOVATION CENTER
Issue Date: 12/8/2021
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: FAIL-SAFE
Catalog Number: FSR-24-2-LD4-1STD-35-UNV-80-94-EDD
Description: 2X2 FSR TROFFER WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND .187 CLEAR TEMPERED G ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 3500K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1956.0 lumens
Efficiency: N/A
Efficacy: 117.8 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.23 / 1.33
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

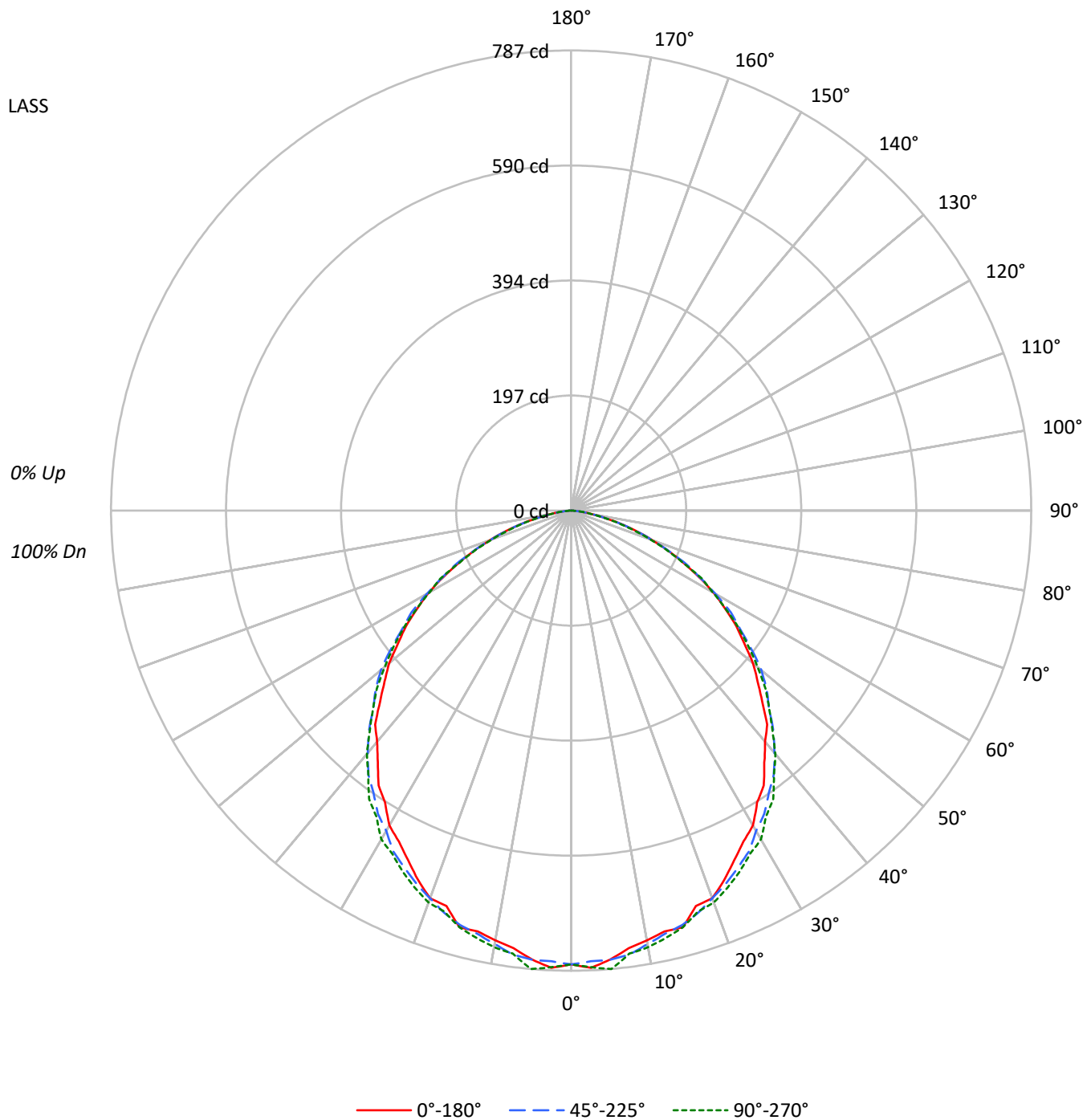
Input Watts (W): 16.6
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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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	0
RCR																		
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100
1	110	105	101	98	107	103	100	96	99	96	93	95	93	90	91	90	88	86
2	100	93	86	81	98	91	85	80	87	82	78	84	80	76	81	78	75	73
3	92	82	74	68	89	80	73	67	77	71	66	75	69	65	72	68	64	62
4	84	73	64	58	82	71	64	58	69	62	57	67	61	56	65	59	55	53
5	78	65	57	50	76	64	56	50	62	55	49	60	54	49	58	53	48	46
6	72	59	50	44	70	58	50	44	56	49	43	54	48	43	53	47	43	41
7	67	53	45	39	65	53	45	39	51	44	39	50	43	38	48	42	38	36
8	62	49	41	35	61	48	40	35	47	40	34	46	39	34	44	39	34	32
9	58	45	37	31	57	44	37	31	43	36	31	42	36	31	41	35	31	29
10	54	41	34	29	53	41	33	28	40	33	28	39	33	28	38	32	28	26

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	2088	2088	2088
5°	2082	2082	2126
10°	2039	2057	2072
15°	2055	2044	2056
20°	2021	2021	2042
25°	1959	2002	2023
30°	1932	1966	2018
35°	1886	1936	1979
40°	1813	1900	1909
45°	1758	1821	1823
50°	1700	1777	1743
55°	1620	1651	1640
60°	1515	1530	1503
65°	1351	1385	1341
70°	1159	1163	1131
75°	918	916	881
80°	615	598	575
85°	333	330	309

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 67.5°
 Vertical Angle: 45°
 Luminance: 1867 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	73.0	3.7
10°-20°	206.9	10.6
20°-30°	310.0	15.8
30°-40°	367.4	18.8
40°-50°	368.1	18.8
50°-60°	312.4	16.0
60°-70°	210.6	10.8
70°-80°	92.6	4.7
80°-90°	15.0	0.8
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°	589.9	30.2
0°-40°	957.3	48.9
0°-60°	1637.8	83.7
0°-90°	1956.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1956.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	776	776	776	776	776	
5°	771	769	771	769	787	73
15°	738	729	734	738	738	206
25°	660	663	674	683	682	305
35°	574	576	589	603	602	357
45°	462	471	478	491	479	357
55°	345	343	352	350	350	307
65°	212	209	218	209	211	211
75°	88	86	88	82	85	95
85°	11	10	11	10	10	16
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	776.1	776.1	776.1	776.1	776.1
2.5°	782.8	776.9	771.4	777.8	781.7
5°	770.6	768.8	770.9	768.6	787.1
7.5°	754.7	761.7	765.7	763.2	764.3
10°	746.3	743.9	752.8	759.1	758.2
12.5°	737.3	740.9	741.4	748.1	748.7
15°	737.8	729.3	733.8	737.6	737.9
17.5°	709.2	718.4	721.5	730.2	719.4
20°	705.6	698.9	705.6	714.6	713.2
22.5°	684.1	676.6	691.0	698.9	698.4
25°	659.7	663.3	674.1	682.9	681.5
27.5°	638.2	642.4	657.8	670.0	662.2
30°	621.7	619.6	632.6	643.4	649.4
32.5°	592.1	599.7	615.0	625.7	620.0
35°	574.2	575.9	589.2	602.8	602.4
37.5°	542.8	550.7	569.5	573.3	569.8
40°	516.1	524.0	540.9	545.0	543.3
42.5°	496.3	497.7	512.3	517.0	509.4
45°	461.9	470.6	478.4	490.7	479.1
47.5°	432.7	436.7	453.5	456.8	450.7
50°	406.1	407.5	424.5	420.4	416.4
52.5°	372.8	378.7	388.2	387.4	382.7
55°	345.3	343.0	352.0	349.6	349.5
57.5°	312.3	316.3	323.8	320.0	313.8
60°	281.5	281.6	284.3	280.0	279.2
62.5°	247.1	248.3	248.9	243.6	252.2
65°	212.1	209.3	217.5	209.2	210.6
67.5°	180.0	181.4	180.6	175.4	177.4
70°	147.3	149.1	147.8	141.9	143.7
72.5°	117.4	115.2	116.6	109.2	112.6
75°	88.3	86.5	88.1	81.9	84.7
77.5°	60.1	61.5	60.5	57.2	59.1
80°	39.7	38.6	38.6	36.7	37.1
82.5°	23.1	22.0	21.7	21.1	22.0
85°	10.8	10.5	10.7	10.4	10.0
87.5°	3.9	4.0	4.0	3.8	3.6
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)