

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: P589848

Luminaire Tested: FSR-24-2-LD4-1HI-35-UNV-80-87-EDD

Issue Date: 12/8/2021

Test Information

Test Method: LM-79-2019
Report Number: P589848
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-LD4-1HI-35-UNV-80-87-EDD
Description: 2X2 FSR TROFFER WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND .375 CLEAR PC ENVIRONM
SIDE LENSES WITH, 80 CRI AND 3500K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2244.0 lumens
Efficiency: N/A
Efficacy: 103.9 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

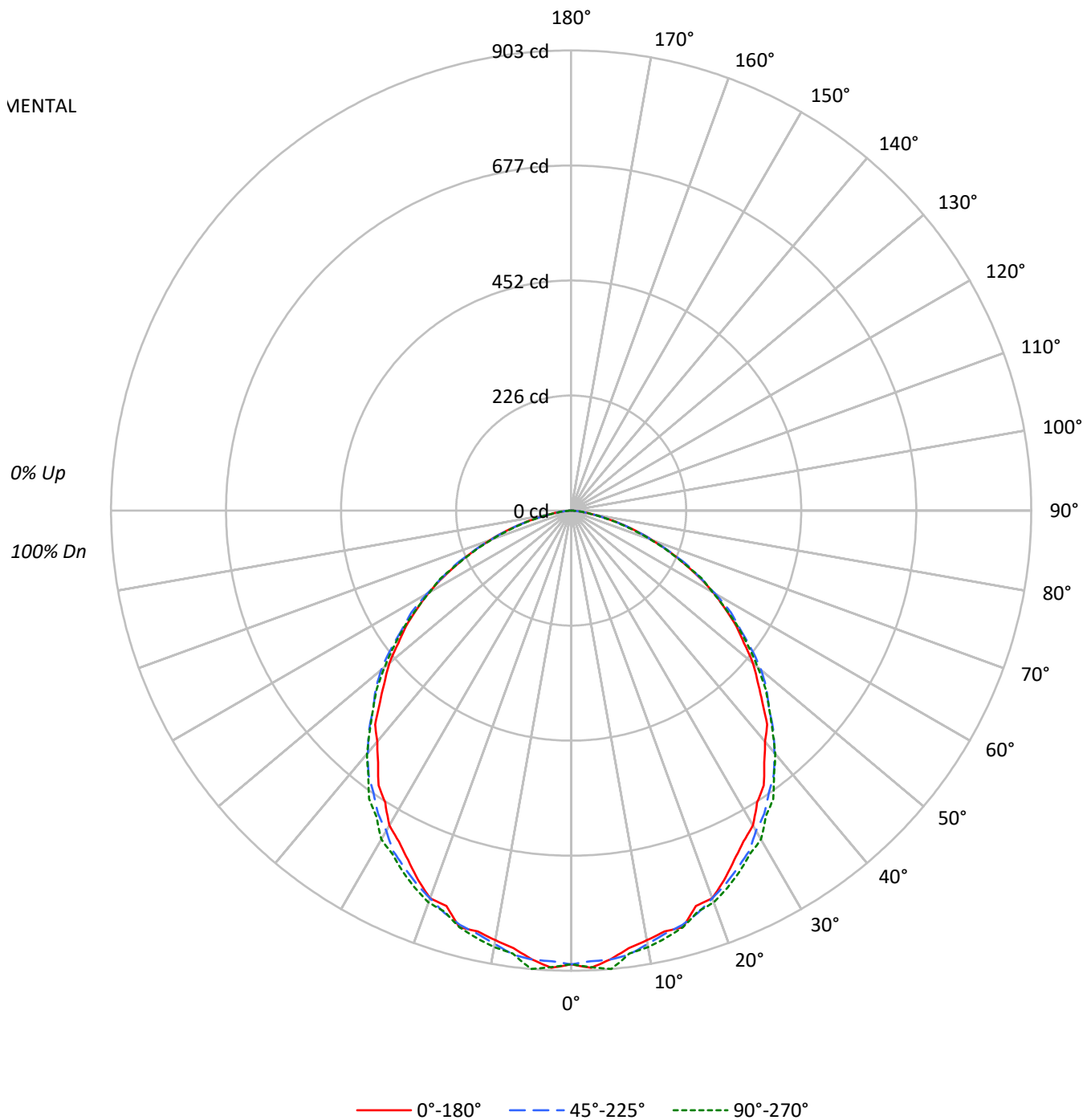
Input Watts (W): 21.6
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	2396	2396	2396
5°	2388	2389	2439
10°	2340	2360	2377
15°	2358	2345	2359
20°	2318	2318	2343
25°	2247	2296	2321
30°	2216	2255	2315
35°	2164	2221	2270
40°	2080	2180	2190
45°	2017	2089	2092
50°	1950	2039	2000
55°	1859	1895	1881
60°	1738	1755	1724
65°	1550	1589	1538
70°	1330	1334	1297
75°	1053	1050	1010
80°	705	687	659
85°	383	380	355

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 67.5°
 Vertical Angle: 45°
 Luminance: 2143 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	83.8	3.7
10°-20°	237.4	10.6
20°-30°	355.6	15.8
30°-40°	421.5	18.8
40°-50°	422.3	18.8
50°-60°	358.4	16.0
60°-70°	241.7	10.8
70°-80°	106.2	4.7
80°-90°	17.3	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°	676.7	30.2
0°-40°	1098.2	48.9
0°-60°	1878.9	83.7
0°-90°	2244.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2244.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	890	890	890	890	890	
5°	884	882	884	882	903	83
15°	846	837	842	846	847	236
25°	757	761	773	784	782	350
35°	659	661	676	692	691	409
45°	530	540	549	563	550	410
55°	396	394	404	401	401	352
65°	243	240	250	240	242	242
75°	101	99	101	94	97	109
85°	12	12	12	12	12	18
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	890.4	890.4	890.4	890.4	890.4
2.5°	898.1	891.3	885.0	892.3	896.8
5°	884.0	882.0	884.4	881.7	903.0
7.5°	865.9	873.8	878.4	875.5	876.8
10°	856.2	853.5	863.7	870.8	869.8
12.5°	845.9	850.0	850.6	858.3	859.0
15°	846.4	836.7	841.8	846.2	846.6
17.5°	813.6	824.1	827.7	837.7	825.3
20°	809.5	801.8	809.5	819.8	818.2
22.5°	784.8	776.2	792.8	801.8	801.3
25°	756.8	760.9	773.3	783.5	781.8
27.5°	732.2	737.0	754.7	768.6	759.7
30°	713.2	710.8	725.7	738.2	745.1
32.5°	679.3	688.0	705.5	717.8	711.3
35°	658.7	660.7	676.0	691.6	691.1
37.5°	622.7	631.8	653.3	657.7	653.7
40°	592.0	601.1	620.6	625.3	623.3
42.5°	569.4	571.0	587.7	593.1	584.5
45°	530.0	539.9	548.8	563.0	549.6
47.5°	496.4	501.0	520.3	524.1	517.1
50°	465.9	467.5	487.0	482.3	477.7
52.5°	427.6	434.4	445.4	444.4	439.0
55°	396.2	393.5	403.9	401.1	401.0
57.5°	358.3	362.9	371.4	367.1	360.1
60°	322.9	323.0	326.1	321.2	320.3
62.5°	283.5	284.9	285.6	279.5	289.4
65°	243.4	240.2	249.6	240.0	241.6
67.5°	206.5	208.1	207.2	201.2	203.5
70°	169.0	171.1	169.6	162.8	164.9
72.5°	134.7	132.2	133.8	125.3	129.2
75°	101.3	99.2	101.0	93.9	97.1
77.5°	69.0	70.6	69.4	65.6	67.8
80°	45.5	44.3	44.3	42.1	42.5
82.5°	26.6	25.3	24.9	24.3	25.3
85°	12.4	12.1	12.3	12.0	11.5
87.5°	4.5	4.6	4.6	4.4	4.1
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)