

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: P589845

Luminaire Tested: FSR-24-2-LD4-1HI-35-UNV-80-84-EDD

Issue Date: 12/8/2021

Test Information

Test Method: LM-79-2019
Report Number: P589845
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-80-84-EDD
Description: 2X2 FSR TROFFER WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND .125 CLEAR PC ENVIRON
SIDE LENSES WITH, 80 CRI AND 3500K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2393.0 lumens
Efficiency: N/A
Efficacy: 110.8 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

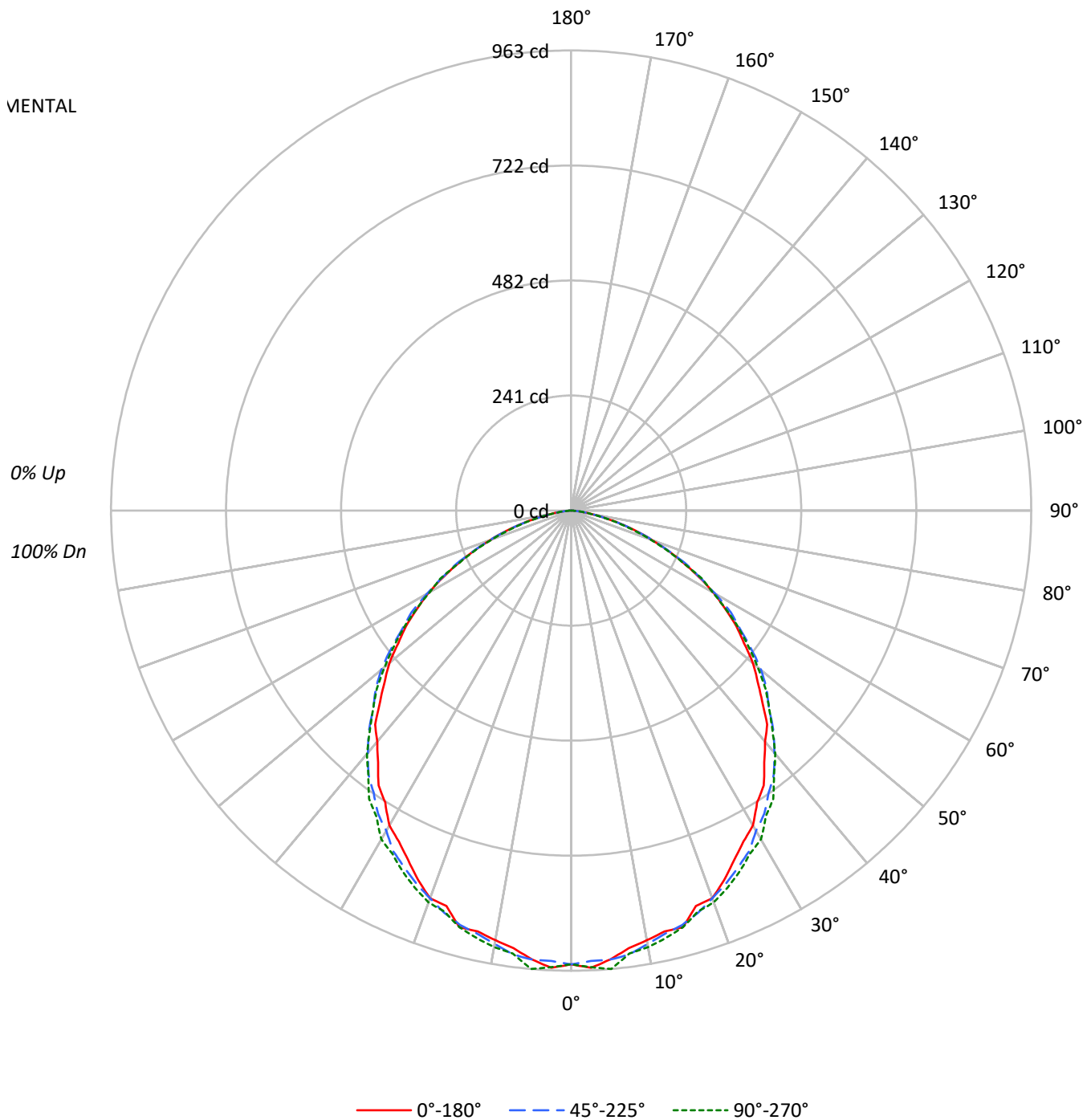
Input Watts (W): 21.6
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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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	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°	2555	2555	2555
5°	2546	2548	2601
10°	2495	2517	2534
15°	2515	2501	2515
20°	2472	2472	2499
25°	2396	2449	2476
30°	2363	2405	2469
35°	2308	2368	2421
40°	2218	2325	2335
45°	2151	2227	2230
50°	2080	2174	2133
55°	1982	2021	2006
60°	1854	1872	1838
65°	1652	1694	1641
70°	1418	1423	1383
75°	1123	1121	1077
80°	752	731	704
85°	408	404	380

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 67.5°
 Vertical Angle: 45°
 Luminance: 2285 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	89.3	3.7
10°-20°	253.1	10.6
20°-30°	379.2	15.8
30°-40°	449.5	18.8
40°-50°	450.3	18.8
50°-60°	382.2	16.0
60°-70°	257.7	10.8
70°-80°	113.2	4.7
80°-90°	18.4	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°	721.7	30.2
0°-40°	1171.1	48.9
0°-60°	2003.7	83.7
0°-90°	2393.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2393.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	950	950	950	950	950	
5°	943	940	943	940	963	89
15°	903	892	898	902	903	251
25°	807	811	825	836	834	373
35°	702	704	721	738	737	436
45°	565	576	585	600	586	437
55°	422	420	431	428	428	376
65°	260	256	266	256	258	258
75°	108	106	108	100	104	116
85°	13	13	13	13	12	19
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	949.5	949.5	949.5	949.5	949.5
2.5°	957.7	950.5	943.7	951.6	956.3
5°	942.7	940.5	943.1	940.3	963.0
7.5°	923.4	931.8	936.7	933.7	935.0
10°	913.1	910.1	921.0	928.6	927.5
12.5°	902.0	906.5	907.1	915.3	916.0
15°	902.7	892.2	897.7	902.4	902.8
17.5°	867.6	878.9	882.7	893.3	880.1
20°	863.3	855.1	863.3	874.2	872.5
22.5°	836.9	827.7	845.4	855.1	854.5
25°	807.0	811.4	824.7	835.5	833.8
27.5°	780.8	785.9	804.8	819.7	810.1
30°	760.6	758.0	773.9	787.2	794.5
32.5°	724.4	733.7	752.4	765.5	758.5
35°	702.5	704.5	720.8	737.5	737.0
37.5°	664.1	673.8	696.7	701.4	697.1
40°	631.4	641.0	661.8	666.8	664.7
42.5°	607.2	608.9	626.7	632.5	623.3
45°	565.2	575.7	585.3	600.3	586.1
47.5°	529.4	534.3	554.9	558.9	551.4
50°	496.9	498.6	519.3	514.3	509.4
52.5°	456.0	463.3	474.9	473.9	468.2
55°	422.5	419.6	430.7	427.7	427.6
57.5°	382.1	387.0	396.1	391.4	384.0
60°	344.4	344.5	347.8	342.5	341.5
62.5°	302.3	303.8	304.5	298.0	308.6
65°	259.5	256.1	266.1	256.0	257.7
67.5°	220.2	221.9	220.9	214.5	217.0
70°	180.2	182.4	180.8	173.6	175.8
72.5°	143.7	141.0	142.7	133.6	137.8
75°	108.0	105.8	107.8	100.2	103.6
77.5°	73.6	75.3	74.0	70.0	72.3
80°	48.5	47.2	47.2	44.9	45.4
82.5°	28.3	27.0	26.6	25.9	27.0
85°	13.2	12.9	13.1	12.7	12.3
87.5°	4.8	4.9	4.9	4.7	4.4
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)