

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: P590424

Luminaire Tested: FSR-24-2-LD4-3HI-35-UNV-80-87-EDD

Issue Date: 12/8/2021

Test Information

Test Method: LM-79-2019
Report Number: P590424
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-LD4-3HI-35-UNV-80-87-EDD
Description: 2X2 FSR TROFFER WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND .375 CLEAR PC ENVIRON
SIDE LENSES WITH, 80 CRI AND 3500K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 6732.0 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

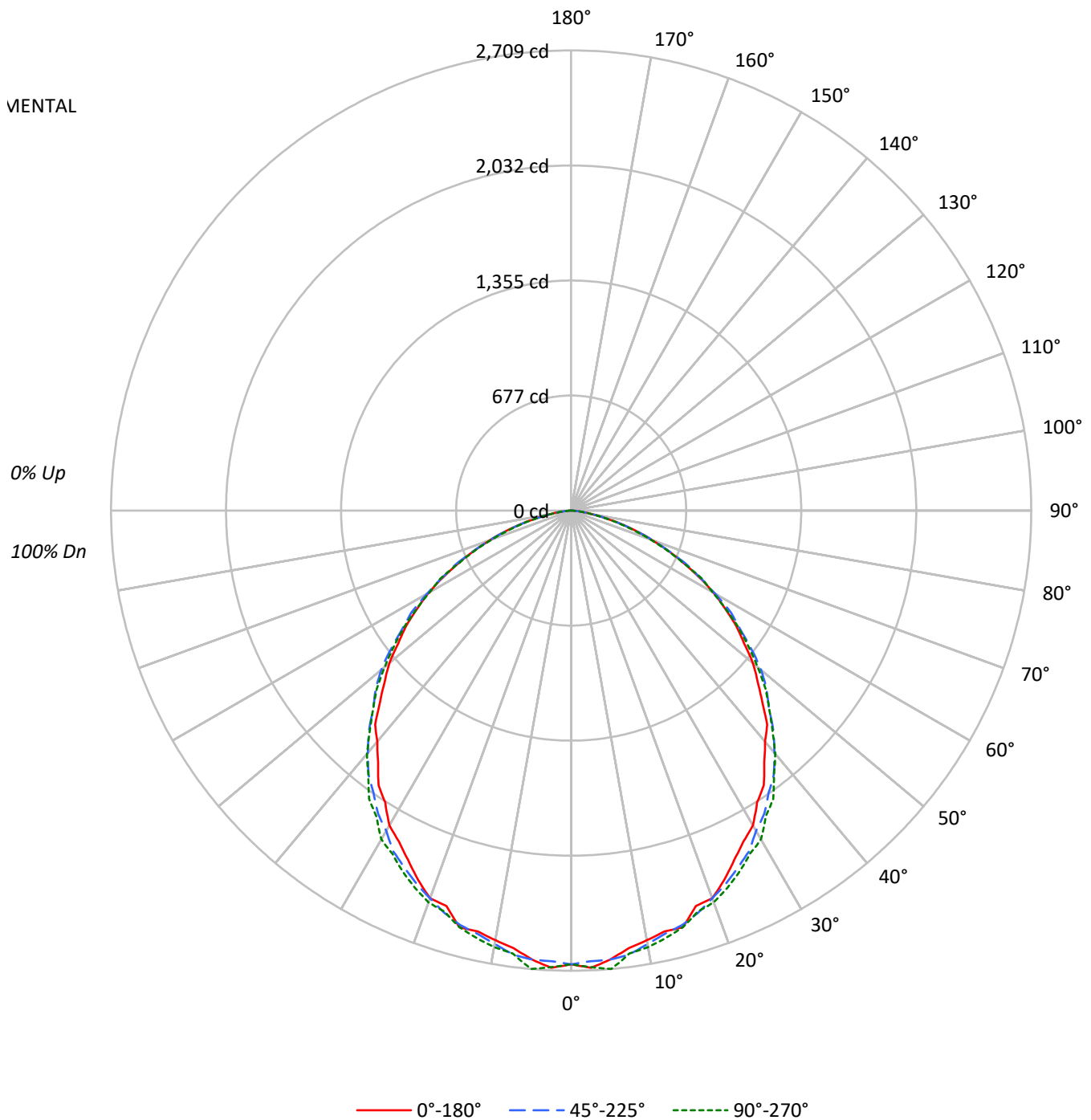
Input Watts (W): 64.8
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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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°	7188	7188	7188
5°	7164	7167	7318
10°	7019	7080	7130
15°	7074	7036	7075
20°	6955	6955	7029
25°	6741	6888	6964
30°	6648	6765	6945
35°	6492	6662	6811
40°	6239	6540	6569
45°	6051	6266	6275
50°	5852	6116	5999
55°	5576	5684	5643
60°	5214	5266	5171
65°	4649	4767	4616
70°	3989	4002	3891
75°	3159	3151	3030
80°	2117	2058	1977
85°	1149	1139	1065

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 67.5°
 Vertical Angle: 45°
 Luminance: 6427 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	251.3	3.7
10°-20°	712.1	10.6
20°-30°	1066.9	15.8
30°-40°	1264.4	18.8
40°-50°	1266.8	18.8
50°-60°	1075.3	16.0
60°-70°	725.0	10.8
70°-80°	318.5	4.7
80°-90°	51.8	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°	2030.2	30.2
0°-40°	3294.7	48.9
0°-60°	5636.7	83.7
0°-90°	6732.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	6732.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2671	2671	2671	2671	2671	
5°	2652	2646	2653	2645	2709	250
15°	2539	2510	2526	2539	2540	707
25°	2270	2283	2320	2350	2346	1050
35°	1976	1982	2028	2075	2073	1227
45°	1590	1620	1646	1689	1649	1230
55°	1188	1180	1212	1203	1203	1057
65°	730	720	749	720	725	726
75°	304	298	303	282	291	326
85°	37	36	37	36	34	54
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2671.1	2671.1	2671.1	2671.1	2671.1
2.5°	2694.2	2673.8	2654.9	2677.0	2690.4
5°	2652.1	2645.9	2653.2	2645.2	2709.0
7.5°	2597.6	2621.4	2635.2	2626.6	2630.4
10°	2568.7	2560.4	2591.1	2612.5	2609.4
12.5°	2537.6	2550.0	2551.8	2574.9	2576.9
15°	2539.3	2510.0	2525.5	2538.7	2539.7
17.5°	2440.7	2472.4	2483.1	2513.1	2475.9
20°	2428.6	2405.5	2428.6	2459.3	2454.5
22.5°	2354.5	2328.6	2378.3	2405.5	2403.8
25°	2270.3	2282.8	2320.0	2350.4	2345.5
27.5°	2196.5	2211.0	2264.1	2305.9	2279.0
30°	2139.6	2132.4	2177.2	2214.5	2235.2
32.5°	2037.9	2064.1	2116.5	2153.4	2133.8
35°	1976.2	1982.0	2027.9	2074.8	2073.4
37.5°	1868.2	1895.5	1959.9	1973.1	1961.0
40°	1776.1	1803.4	1861.7	1875.8	1869.9
42.5°	1708.2	1713.0	1763.0	1779.2	1753.4
45°	1589.9	1619.6	1646.5	1688.9	1648.9
47.5°	1489.2	1503.0	1560.9	1572.3	1551.3
50°	1397.8	1402.6	1460.9	1446.8	1433.0
52.5°	1282.9	1303.3	1336.1	1333.3	1317.1
55°	1188.5	1180.5	1211.6	1203.3	1202.9
57.5°	1075.0	1088.8	1114.3	1101.2	1080.2
60°	968.8	969.1	978.4	963.6	960.8
62.5°	850.5	854.6	856.7	838.4	868.1
65°	730.1	720.5	748.7	720.1	724.9
67.5°	619.4	624.2	621.5	603.5	610.4
70°	507.0	513.2	508.7	488.3	494.6
72.5°	404.2	396.6	401.4	375.9	387.6
75°	303.8	297.6	303.1	281.8	291.4
77.5°	206.9	211.8	208.3	196.9	203.5
80°	136.6	132.8	132.8	126.2	127.6
82.5°	79.7	75.9	74.8	72.8	75.9
85°	37.2	36.2	36.9	35.9	34.5
87.5°	13.5	13.8	13.8	13.1	12.4
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)