

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: P590647

Luminaire Tested: FSR-24-2-LD4-3STD-40-UNV-80-86-EDD

Issue Date: 12/8/2021

Test Information

Test Method: LM-79-2019
Report Number: P590647
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-LD4-3STD-40-UNV-80-86-EDD
Description: 2X2 FSR TROFFER WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND .250 CLEAR PC ENVIRONM
SIDE LENSES WITH, 80 CRI AND 4000K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 5729.0 lumens
Efficiency: N/A
Efficacy: 114.6 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

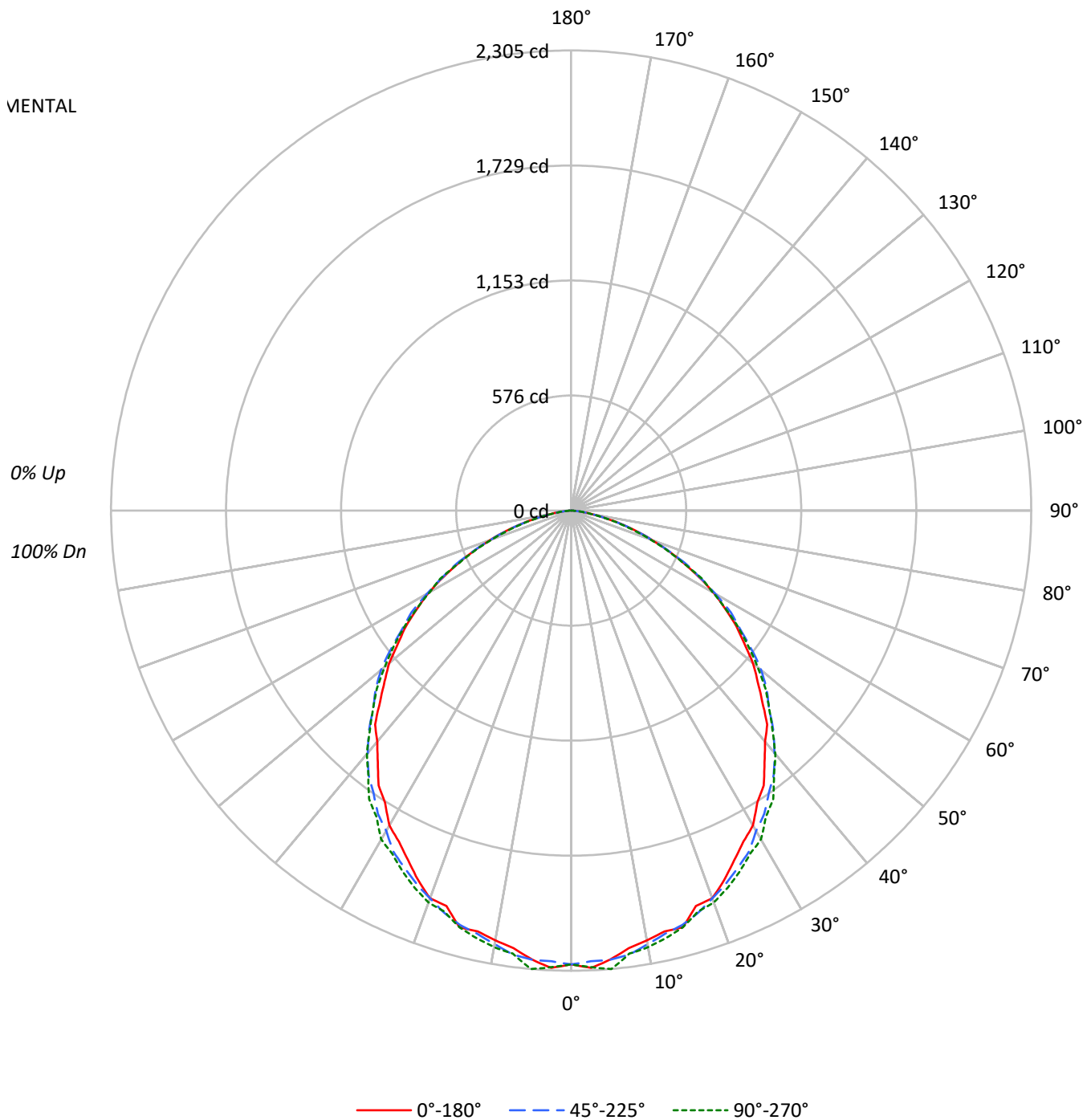
Input Watts (W): 50
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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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°	6117	6117	6117
5°	6097	6099	6227
10°	5973	6025	6068
15°	6020	5988	6021
20°	5919	5919	5982
25°	5737	5862	5927
30°	5658	5757	5910
35°	5525	5669	5797
40°	5310	5565	5590
45°	5149	5332	5340
50°	4980	5205	5105
55°	4745	4837	4803
60°	4437	4481	4401
65°	3956	4057	3928
70°	3394	3406	3312
75°	2689	2682	2578
80°	1801	1751	1683
85°	979	969	905

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 67.5°
 Vertical Angle: 45°
 Luminance: 5469 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	213.8	3.7
10°-20°	606.0	10.6
20°-30°	907.9	15.8
30°-40°	1076.1	18.8
40°-50°	1078.0	18.8
50°-60°	915.1	16.0
60°-70°	616.9	10.8
70°-80°	271.1	4.7
80°-90°	44.0	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°	1727.7	30.2
0°-40°	2803.8	48.9
0°-60°	4796.9	83.7
0°-90°	5729.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5729.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2273	2273	2273	2273	2273	
5°	2257	2252	2258	2251	2305	213
15°	2161	2136	2149	2160	2161	602
25°	1932	1943	1974	2000	1996	893
35°	1682	1687	1726	1766	1764	1044
45°	1353	1378	1401	1437	1403	1047
55°	1011	1005	1031	1024	1024	900
65°	621	613	637	613	617	618
75°	259	253	258	240	248	277
85°	32	31	31	30	29	46
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2273.1	2273.1	2273.1	2273.1	2273.1
2.5°	2292.8	2275.5	2259.3	2278.1	2289.6
5°	2257.0	2251.7	2257.9	2251.1	2305.4
7.5°	2210.6	2230.9	2242.6	2235.3	2238.5
10°	2186.0	2178.9	2205.0	2223.2	2220.6
12.5°	2159.5	2170.1	2171.6	2191.2	2193.0
15°	2161.0	2136.1	2149.3	2160.4	2161.3
17.5°	2077.1	2104.1	2113.2	2138.7	2107.0
20°	2066.8	2047.1	2066.8	2092.9	2088.8
22.5°	2003.7	1981.7	2023.9	2047.1	2045.7
25°	1932.1	1942.6	1974.3	2000.2	1996.1
27.5°	1869.3	1881.6	1926.8	1962.3	1939.4
30°	1820.8	1814.7	1852.8	1884.5	1902.1
32.5°	1734.3	1756.6	1801.2	1832.6	1815.9
35°	1681.7	1686.7	1725.8	1765.7	1764.5
37.5°	1589.9	1613.1	1667.9	1679.1	1668.8
40°	1511.5	1534.7	1584.3	1596.3	1591.3
42.5°	1453.7	1457.8	1500.3	1514.1	1492.1
45°	1353.0	1378.3	1401.1	1437.2	1403.2
47.5°	1267.3	1279.1	1328.4	1338.0	1320.1
50°	1189.5	1193.6	1243.2	1231.2	1219.5
52.5°	1091.8	1109.1	1137.0	1134.7	1120.9
55°	1011.4	1004.6	1031.0	1024.0	1023.7
57.5°	914.8	926.6	948.3	937.1	919.2
60°	824.4	824.7	832.6	820.0	817.7
62.5°	723.8	727.3	729.0	713.5	738.7
65°	621.3	613.1	637.2	612.8	616.9
67.5°	527.1	531.2	528.9	513.6	519.5
70°	431.4	436.7	432.9	415.6	420.9
72.5°	344.0	337.5	341.6	319.9	329.9
75°	258.6	253.3	258.0	239.8	248.0
77.5°	176.1	180.2	177.3	167.6	173.2
80°	116.2	113.0	113.0	107.4	108.6
82.5°	67.8	64.6	63.7	61.9	64.6
85°	31.7	30.8	31.4	30.5	29.3
87.5°	11.4	11.7	11.7	11.2	10.6
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)