

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: P590708

Luminaire Tested: FSR-24-2-LD4-3STD-50-UNV-93-97-EDD

Issue Date: 12/8/2021

Test Information

Test Method: LM-79-2019
Report Number: P590708
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-50-UNV-93-97-EDD
Description: 2X2 FSR TROFFER WITH .156 CLEAR TEMPERED GLASS FIXTURE SIDE AND .375 CLEAR TEMPER
GLASS ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 5000K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 5757.0 lumens
Efficiency: N/A
Efficacy: 115.1 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

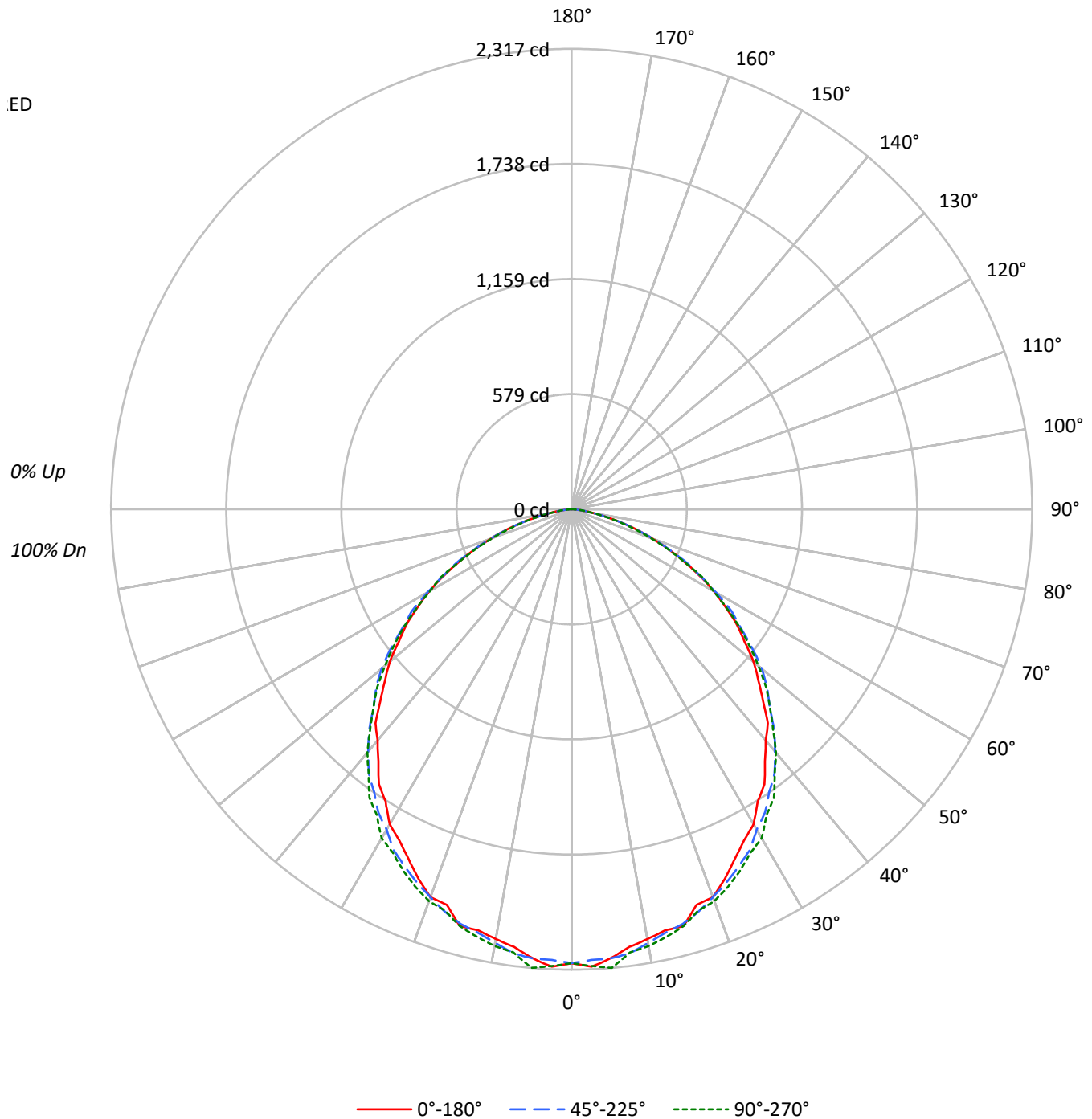
Input Watts (W): 50
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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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	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°	6147	6147	6147
5°	6126	6129	6258
10°	6002	6055	6097
15°	6050	6017	6051
20°	5948	5948	6011
25°	5765	5891	5956
30°	5685	5785	5939
35°	5551	5697	5825
40°	5336	5592	5617
45°	5174	5358	5366
50°	5004	5230	5130
55°	4768	4861	4826
60°	4459	4503	4422
65°	3976	4077	3947
70°	3411	3423	3327
75°	2701	2695	2591
80°	1810	1759	1691
85°	985	976	911

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 67.5°
 Vertical Angle: 45°
 Luminance: 5496 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	214.9	3.7
10°-20°	609.0	10.6
20°-30°	912.3	15.8
30°-40°	1081.3	18.8
40°-50°	1083.3	18.8
50°-60°	919.5	16.0
60°-70°	620.0	10.8
70°-80°	272.4	4.7
80°-90°	44.3	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°	1736.2	30.2
0°-40°	2817.5	48.9
0°-60°	4820.3	83.7
0°-90°	5757.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5757.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2284	2284	2284	2284	2284	
5°	2268	2263	2269	2262	2317	214
15°	2172	2146	2160	2171	2172	605
25°	1942	1952	1984	2010	2006	898
35°	1690	1695	1734	1774	1773	1049
45°	1360	1385	1408	1444	1410	1052
55°	1016	1010	1036	1029	1029	904
65°	624	616	640	616	620	621
75°	260	254	259	241	249	278
85°	32	31	32	31	30	46
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2284.2	2284.2	2284.2	2284.2	2284.2
2.5°	2304.0	2286.6	2270.4	2289.2	2300.7
5°	2268.0	2262.7	2268.9	2262.1	2316.7
7.5°	2221.4	2241.8	2253.6	2246.2	2249.4
10°	2196.6	2189.6	2215.8	2234.1	2231.4
12.5°	2170.1	2180.7	2182.2	2201.9	2203.7
15°	2171.6	2146.5	2159.8	2171.0	2171.9
17.5°	2087.2	2114.4	2123.5	2149.2	2117.3
20°	2076.9	2057.1	2076.9	2103.1	2099.0
22.5°	2013.5	1991.4	2033.8	2057.1	2055.7
25°	1941.5	1952.1	1984.0	2009.9	2005.8
27.5°	1878.4	1890.8	1936.2	1971.9	1948.9
30°	1829.7	1823.6	1861.9	1893.7	1911.4
32.5°	1742.7	1765.2	1810.0	1841.5	1824.7
35°	1689.9	1695.0	1734.2	1774.3	1773.1
37.5°	1597.6	1620.9	1676.1	1687.3	1677.0
40°	1518.9	1542.2	1592.0	1604.1	1599.1
42.5°	1460.8	1464.9	1507.7	1521.5	1499.4
45°	1359.6	1385.0	1408.0	1444.3	1410.1
47.5°	1273.5	1285.3	1334.9	1344.6	1326.6
50°	1195.4	1199.5	1249.3	1237.2	1225.4
52.5°	1097.1	1114.5	1142.6	1140.2	1126.3
55°	1016.3	1009.5	1036.1	1029.0	1028.7
57.5°	919.3	931.1	952.9	941.7	923.7
60°	828.5	828.8	836.7	824.0	821.7
62.5°	727.3	730.8	732.6	717.0	742.3
65°	624.4	616.1	640.3	615.8	619.9
67.5°	529.7	533.8	531.5	516.1	522.0
70°	433.5	438.9	435.0	417.6	422.9
72.5°	345.7	339.2	343.3	321.5	331.5
75°	259.8	254.5	259.2	241.0	249.2
77.5°	177.0	181.1	178.1	168.4	174.0
80°	116.8	113.5	113.5	107.9	109.1
82.5°	68.1	64.9	64.0	62.2	64.9
85°	31.9	31.0	31.6	30.7	29.5
87.5°	11.5	11.8	11.8	11.2	10.6
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)