

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: P590646

Luminaire Tested: FSR-24-2-LD4-3STD-40-UNV-80-85-EDD

Issue Date: 12/8/2021

Test Information

Test Method: LM-79-2019
Report Number: P590646
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-80-85-EDD
Description: 2X2 FSR TROFFER WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND .187 CLEAR PC ENVIRONM
SIDE LENSES WITH, 80 CRI AND 4000K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 5795.0 lumens
Efficiency: N/A
Efficacy: 115.9 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

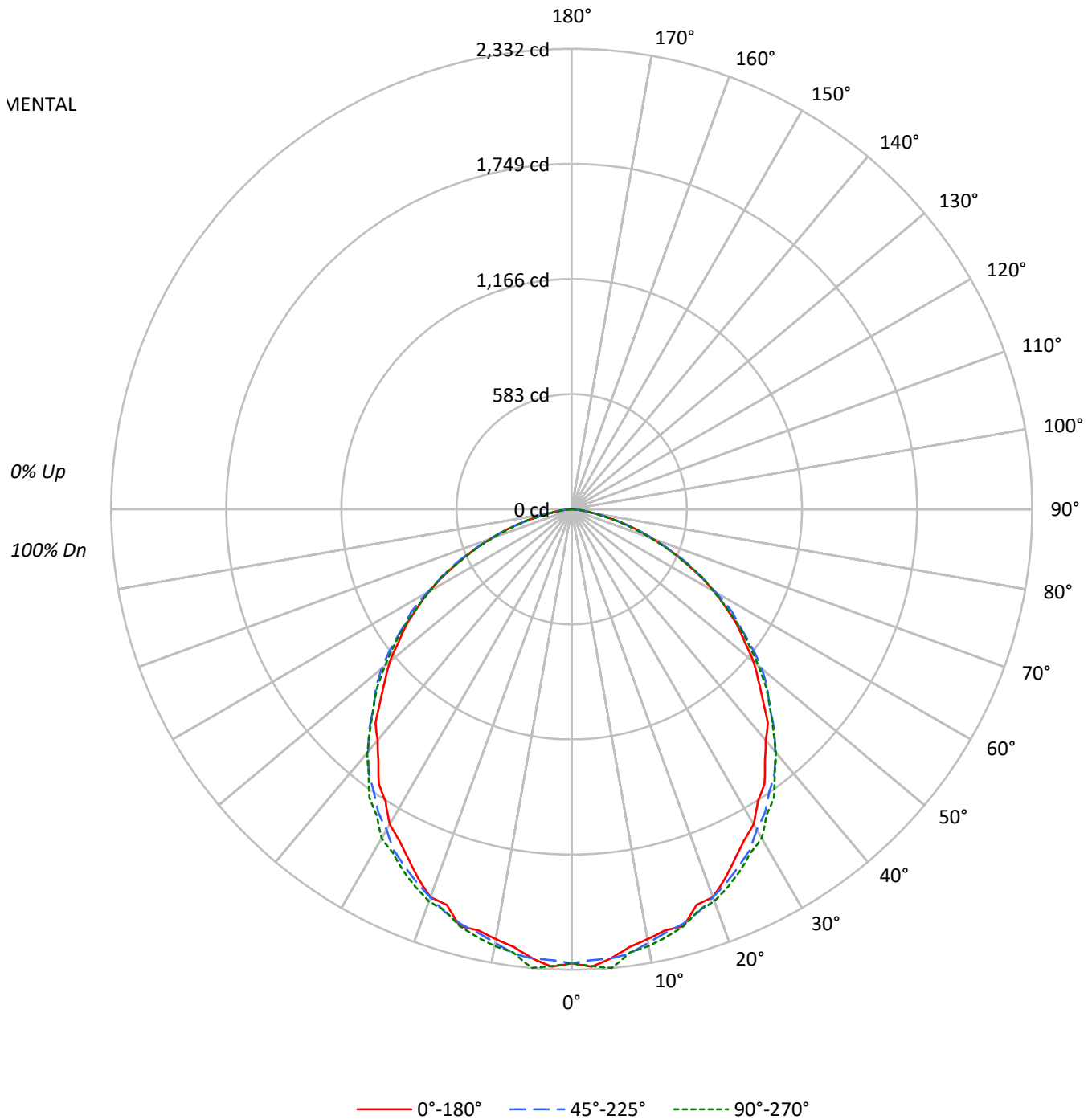
Input Watts (W): 50
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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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				
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°	6187	6187	6187
5°	6167	6169	6299
10°	6042	6095	6138
15°	6090	6057	6091
20°	5987	5987	6051
25°	5803	5930	5995
30°	5723	5824	5979
35°	5588	5734	5863
40°	5371	5629	5655
45°	5208	5394	5402
50°	5037	5265	5164
55°	4799	4893	4858
60°	4488	4533	4451
65°	4002	4104	3973
70°	3434	3445	3349
75°	2719	2714	2609
80°	1822	1771	1702
85°	991	982	917

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 67.5°
 Vertical Angle: 45°
 Luminance: 5533 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	216.3	3.7
10°-20°	613.0	10.6
20°-30°	918.4	15.8
30°-40°	1088.4	18.8
40°-50°	1090.5	18.8
50°-60°	925.6	16.0
60°-70°	624.1	10.8
70°-80°	274.2	4.7
80°-90°	44.6	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°	1747.6	30.2
0°-40°	2836.1	48.9
0°-60°	4852.2	83.7
0°-90°	5795.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5795.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2299	2299	2299	2299	2299	
5°	2283	2278	2284	2277	2332	215
15°	2186	2161	2174	2185	2186	609
25°	1954	1965	1997	2023	2019	903
35°	1701	1706	1746	1786	1785	1056
45°	1369	1394	1417	1454	1419	1059
55°	1023	1016	1043	1036	1036	910
65°	628	620	644	620	624	625
75°	262	256	261	242	251	280
85°	32	31	32	31	30	47
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2299.3	2299.3	2299.3	2299.3	2299.3
2.5°	2319.2	2301.7	2285.4	2304.4	2315.9
5°	2283.0	2277.6	2283.9	2277.0	2332.0
7.5°	2236.1	2256.6	2268.4	2261.0	2264.3
10°	2211.1	2204.0	2230.4	2248.8	2246.2
12.5°	2184.4	2195.1	2196.6	2216.5	2218.3
15°	2185.9	2160.7	2174.0	2185.3	2186.2
17.5°	2101.0	2128.3	2137.5	2163.3	2131.3
20°	2090.6	2070.7	2090.6	2117.0	2112.9
22.5°	2026.8	2004.5	2047.3	2070.7	2069.2
25°	1954.3	1965.0	1997.1	2023.2	2019.1
27.5°	1890.8	1903.3	1949.0	1984.9	1961.8
30°	1841.8	1835.6	1874.2	1906.2	1924.1
32.5°	1754.2	1776.8	1821.9	1853.7	1836.8
35°	1701.1	1706.2	1745.6	1786.0	1784.8
37.5°	1608.2	1631.6	1687.1	1698.4	1688.0
40°	1528.9	1552.4	1602.5	1614.7	1609.7
42.5°	1470.4	1474.6	1517.6	1531.6	1509.3
45°	1368.6	1394.1	1417.3	1453.8	1419.4
47.5°	1281.9	1293.8	1343.7	1353.5	1335.4
50°	1203.2	1207.4	1257.6	1245.4	1233.5
52.5°	1104.4	1121.9	1150.1	1147.7	1133.8
55°	1023.0	1016.2	1042.9	1035.8	1035.5
57.5°	925.4	937.2	959.2	947.9	929.8
60°	833.9	834.2	842.2	829.5	827.1
62.5°	732.1	735.7	737.4	721.7	747.2
65°	628.5	620.2	644.5	619.9	624.0
67.5°	533.2	537.3	535.0	519.5	525.5
70°	436.4	441.8	437.9	420.4	425.7
72.5°	347.9	341.4	345.6	323.6	333.7
75°	261.5	256.2	261.0	242.5	250.9
77.5°	178.1	182.3	179.3	169.5	175.2
80°	117.6	114.3	114.3	108.7	109.8
82.5°	68.6	65.3	64.4	62.6	65.3
85°	32.1	31.2	31.8	30.9	29.7
87.5°	11.6	11.9	11.9	11.3	10.7
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)