

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: P560305

Luminaire Tested: FSR-12-2-LD4-2HI-50-UNV-80-84-EDD

Issue Date: 7/20/2021

Test Information

Test Method: LM-79-2019
Report Number: P560305
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2102-135-5)
Test Lab: INNOVATION CENTER
Issue Date: 7/20/2021
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: FAIL-SAFE
Catalog Number: FSR-12-2-LD4-2HI-50-UNV-80-84-EDD
Description: 1X2 FSR TROFFER WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND .125 CLEAR PC ENVIRON
SIDE LENSES WITH, 80 CRI AND 5000K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3843.0 lumens
Efficiency: N/A
Efficacy: 89.0 lumens/watt
Spacing Criteria (0/90/45): 1.1 / 1 / 1.15
Luminous Opening: Rectangular (W 1' x L: 2' x H: 0')
CIE Type: Direct

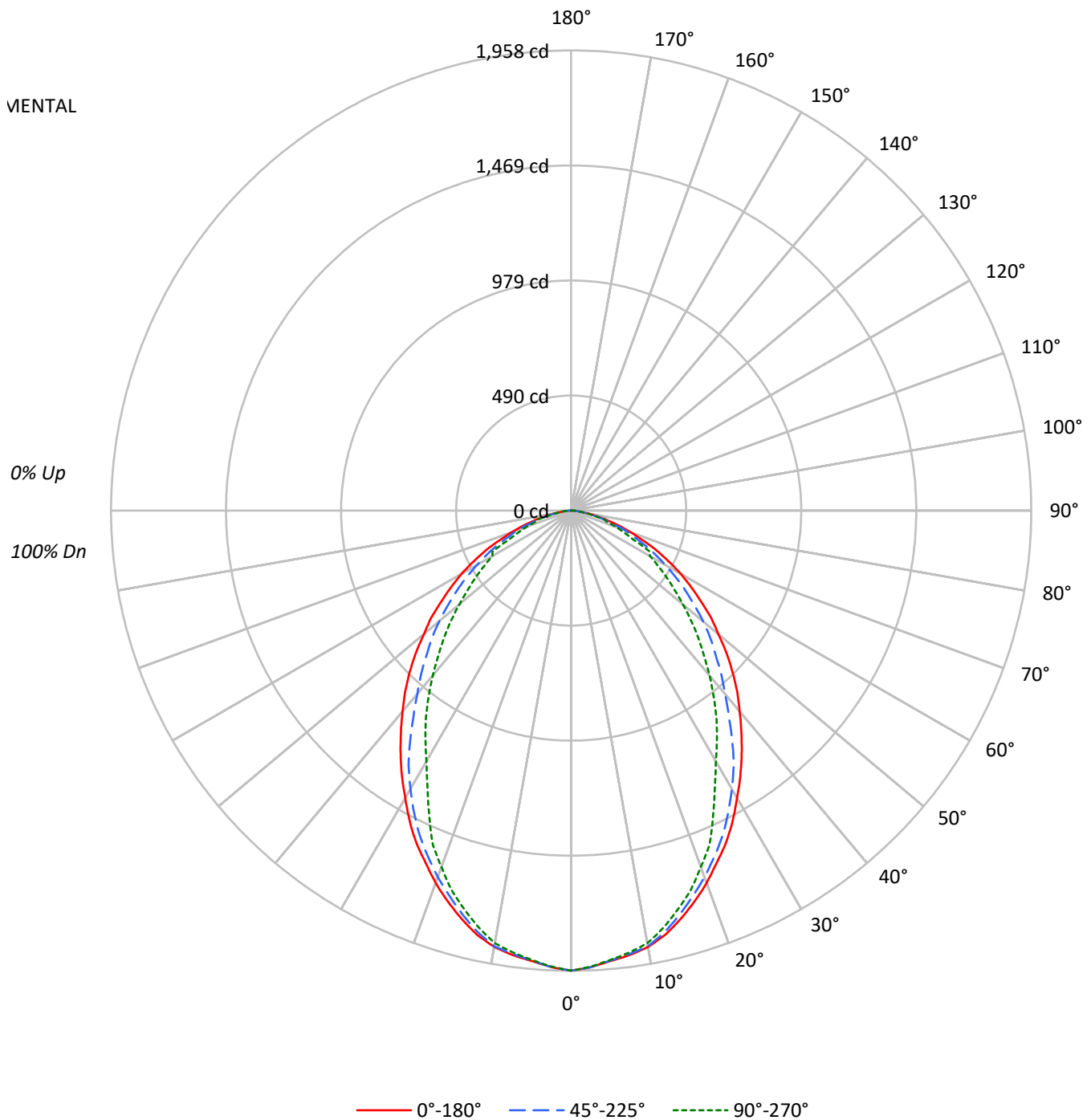
Input Watts (W): 43.2
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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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	106	102	99	108	104	100	97	100	97	94	96	94	91	92	90	89	87
2	101	94	88	83	99	92	87	82	89	84	80	86	82	78	83	79	77	75
3	93	84	77	71	91	82	76	70	79	74	69	77	72	68	74	70	67	65
4	86	75	67	61	84	74	66	61	72	65	60	69	64	59	67	62	58	56
5	80	68	60	54	78	67	59	53	65	58	53	63	57	52	61	56	52	50
6	74	62	53	48	72	61	53	47	59	52	47	57	51	47	56	50	46	44
7	69	56	48	43	67	56	48	42	54	47	42	53	46	42	51	46	42	40
8	65	52	44	38	63	51	44	38	50	43	38	49	42	38	48	42	38	36
9	61	48	40	35	59	47	40	35	46	39	35	45	39	34	44	38	34	33
10	57	44	37	32	56	44	37	32	43	36	32	42	36	32	41	36	32	30

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	10536	10536	10536
5°	10392	10380	10368
10°	10303	10290	10216
15°	10025	9924	9785
20°	9656	9501	9242
25°	9260	9058	8494
30°	8776	8495	7651
35°	8312	7851	7077
40°	7839	7155	6440
45°	7390	6614	5822
50°	6841	6139	5192
55°	6328	5563	4650
60°	5797	4970	4166
65°	5102	4351	3689
70°	4201	3811	3135
75°	3342	2917	3059
80°	2244	2104	1965
85°	1396	1680	1958

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 7390 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	182.2	4.7
10°-20°	500.1	13.0
20°-30°	692.3	18.0
30°-40°	738.2	19.2
40°-50°	673.5	17.5
50°-60°	527.6	13.7
60°-70°	343.9	8.9
70°-80°	152.4	4.0
80°-90°	32.7	0.9
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°	1374.7	35.8
0°-40°	2112.9	55.0
0°-60°	3314.0	86.2
0°-90°	3843.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3843.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1958	1958	1958	1958	1958	
5°	1924	1921	1921	1919	1919	183
15°	1799	1799	1781	1763	1756	506
25°	1559	1550	1525	1471	1430	716
35°	1265	1256	1195	1104	1077	791
45°	971	950	869	797	765	748
55°	674	654	593	523	496	605
65°	401	378	342	348	290	395
75°	161	149	140	134	147	172
85°	23	25	27	29	32	31
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1957.6	1957.6	1957.6	1957.6	1957.6
2.5°	1944.0	1944.0	1944.0	1941.7	1941.7
5°	1923.6	1921.4	1921.4	1919.1	1919.1
7.5°	1907.8	1905.5	1903.3	1901.0	1896.5
10°	1885.2	1885.2	1882.9	1871.6	1869.3
12.5°	1848.9	1846.7	1837.6	1821.8	1817.3
15°	1799.2	1799.2	1781.1	1762.9	1756.2
17.5°	1744.8	1742.6	1719.9	1701.8	1692.8
20°	1686.0	1681.5	1658.8	1629.4	1613.6
22.5°	1620.4	1620.4	1593.2	1554.7	1538.9
25°	1559.3	1550.2	1525.3	1471.0	1430.3
27.5°	1489.1	1475.5	1448.4	1371.4	1323.9
30°	1412.2	1405.4	1366.9	1267.3	1231.1
32.5°	1339.7	1328.4	1287.7	1183.6	1154.2
35°	1265.1	1256.0	1194.9	1104.4	1077.2
37.5°	1190.4	1179.1	1102.1	1029.7	995.8
40°	1115.7	1102.1	1018.4	952.8	916.6
42.5°	1045.5	1027.4	946.0	875.8	835.1
45°	970.9	950.5	869.0	796.6	764.9
47.5°	896.2	878.1	803.4	728.7	692.5
50°	817.0	801.1	733.2	658.6	620.1
52.5°	751.3	726.5	660.8	586.1	554.5
55°	674.4	654.0	592.9	522.8	495.6
57.5°	604.2	583.9	527.3	461.7	439.0
60°	538.6	509.2	461.7	405.1	387.0
62.5°	466.2	443.6	402.8	355.3	377.9
65°	400.6	377.9	341.7	348.5	289.7
67.5°	328.1	316.8	285.1	253.5	244.4
70°	267.0	253.5	242.2	208.2	199.2
72.5°	212.7	199.2	183.3	165.2	158.4
75°	160.7	149.4	140.3	133.5	147.1
77.5°	110.9	106.4	99.6	92.8	90.5
80°	72.4	70.2	67.9	65.6	63.4
82.5°	43.0	43.0	43.0	43.0	43.0
85°	22.6	24.9	27.2	29.4	31.7
87.5°	13.6	13.6	15.8	18.1	20.4
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)