

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: P562290

Luminaire Tested: FSR-24-4-LD4-1STD-35-UNV-80-85-EDD-90

Issue Date: 7/20/2021

Test Information

Test Method: LM-79-2019
Report Number: P562290
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-24-4-LD4-1STD-35-UNV-80-85-EDD-90
Description: 2X4 FSR TROFFER WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND .187 CLEAR PC ENVIRONM
SIDE LENSES WITH, 90 CRI AND 3500K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3201.0 lumens
Efficiency: N/A
Efficacy: 96.1 lumens/watt
Spacing Criteria (0/90/45): 1.1 / 1 / 1.15
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

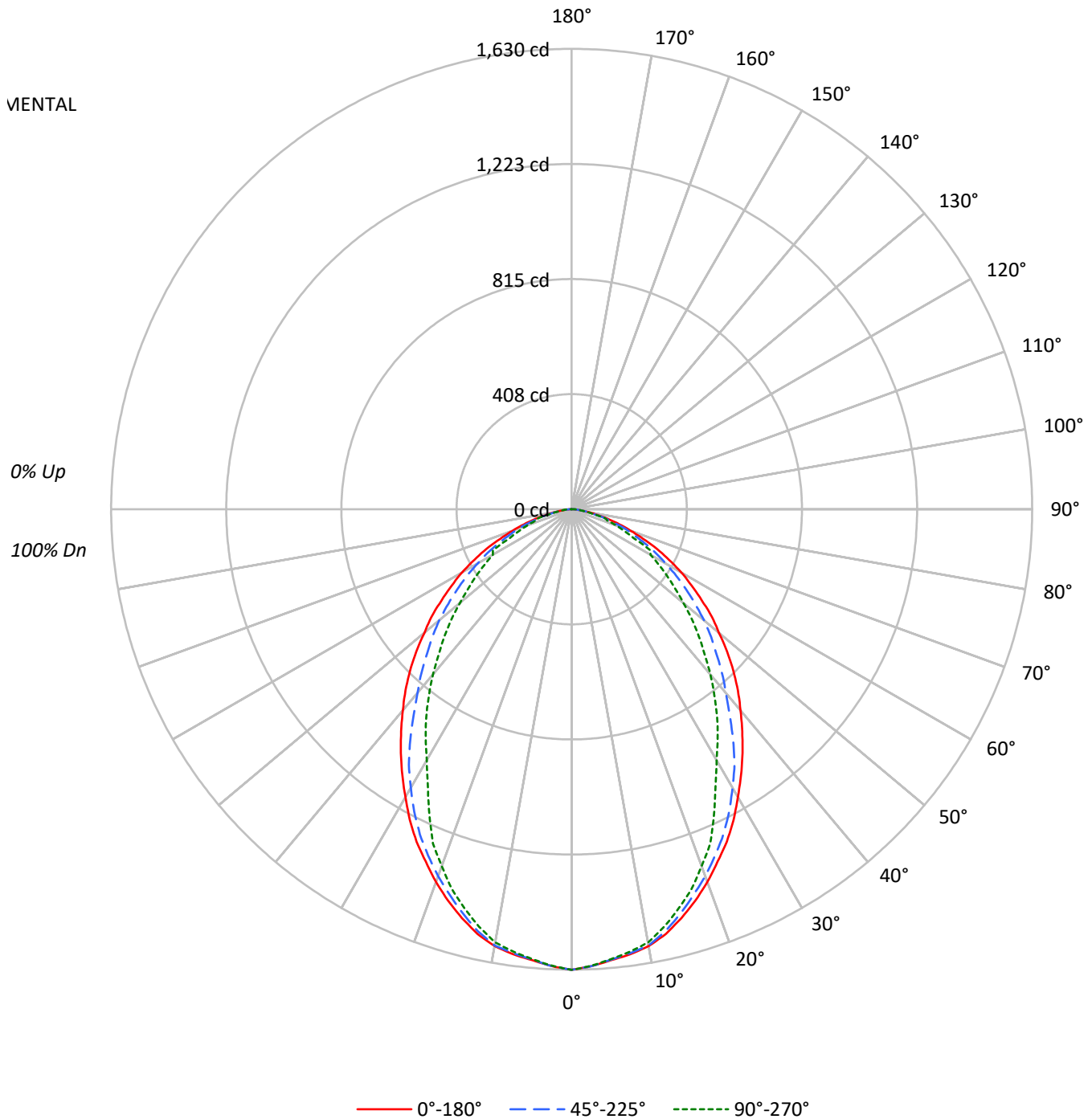
Input Watts (W): 33.3
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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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	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°	2194	2194	2194
5°	2164	2162	2159
10°	2145	2143	2127
15°	2087	2066	2038
20°	2011	1978	1924
25°	1928	1886	1769
30°	1828	1769	1593
35°	1731	1635	1474
40°	1632	1490	1341
45°	1539	1377	1212
50°	1424	1278	1081
55°	1318	1159	968
60°	1207	1035	867
65°	1062	906	768
70°	875	793	653
75°	696	608	637
80°	467	439	409
85°	292	349	408

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 1539 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	151.8	4.7
10°-20°	416.6	13.0
20°-30°	576.7	18.0
30°-40°	614.9	19.2
40°-50°	561.0	17.5
50°-60°	439.5	13.7
60°-70°	286.4	8.9
70°-80°	126.9	4.0
80°-90°	27.2	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°	1145.0	35.8
0°-40°	1759.9	55.0
0°-60°	2760.4	86.2
0°-90°	3201.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3201.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1630	1630	1630	1630	1630	
5°	1602	1600	1600	1598	1598	152
15°	1499	1499	1484	1468	1463	421
25°	1299	1291	1270	1225	1191	596
35°	1054	1046	995	920	897	659
45°	809	792	724	664	637	623
55°	562	545	494	435	413	504
65°	334	315	285	290	241	329
75°	134	124	117	111	122	143
85°	19	21	23	24	26	26
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1630.5	1630.5	1630.5	1630.5	1630.5
2.5°	1619.2	1619.2	1619.2	1617.4	1617.4
5°	1602.3	1600.4	1600.4	1598.5	1598.5
7.5°	1589.1	1587.2	1585.3	1583.4	1579.7
10°	1570.2	1570.2	1568.3	1558.9	1557.0
12.5°	1540.1	1538.2	1530.6	1517.4	1513.7
15°	1498.6	1498.6	1483.5	1468.4	1462.8
17.5°	1453.4	1451.5	1432.6	1417.5	1410.0
20°	1404.3	1400.6	1381.7	1357.2	1344.0
22.5°	1349.7	1349.7	1327.1	1295.0	1281.8
25°	1298.8	1291.2	1270.5	1225.3	1191.3
27.5°	1240.3	1229.0	1206.4	1142.3	1102.7
30°	1176.3	1170.6	1138.6	1055.6	1025.5
32.5°	1115.9	1106.5	1072.6	985.9	961.4
35°	1053.7	1046.2	995.3	919.9	897.3
37.5°	991.5	982.1	918.0	857.7	829.4
40°	929.3	918.0	848.3	793.6	763.4
42.5°	870.9	855.8	787.9	729.5	695.6
45°	808.7	791.7	723.8	663.5	637.1
47.5°	746.5	731.4	669.2	607.0	576.8
50°	680.5	667.3	610.7	548.5	516.5
52.5°	625.8	605.1	550.4	488.2	461.8
55°	561.7	544.8	493.9	435.4	412.8
57.5°	503.3	486.3	439.2	384.5	365.7
60°	448.6	424.1	384.5	337.4	322.3
62.5°	388.3	369.5	335.5	295.9	314.8
65°	333.6	314.8	284.6	290.3	241.3
67.5°	273.3	263.9	237.5	211.1	203.6
70°	222.4	211.1	201.7	173.4	165.9
72.5°	177.2	165.9	152.7	137.6	132.0
75°	133.8	124.4	116.9	111.2	122.5
77.5°	92.4	88.6	82.9	77.3	75.4
80°	60.3	58.4	56.6	54.7	52.8
82.5°	35.8	35.8	35.8	35.8	35.8
85°	18.9	20.7	22.6	24.5	26.4
87.5°	11.3	11.3	13.2	15.1	17.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)