

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: P562288

Luminaire Tested: FSR-24-4-LD4-1STD-35-UNV-80-84-EDD-90

Issue Date: 7/20/2021

Test Information

Test Method: LM-79-2019
Report Number: P562288
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-80-84-EDD-90
Description: 2X4 FSR TROFFER WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND .125 CLEAR PC ENVIRONM
SIDE LENSES WITH, 90 CRI AND 3500K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3265.0 lumens
Efficiency: N/A
Efficacy: 98.0 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

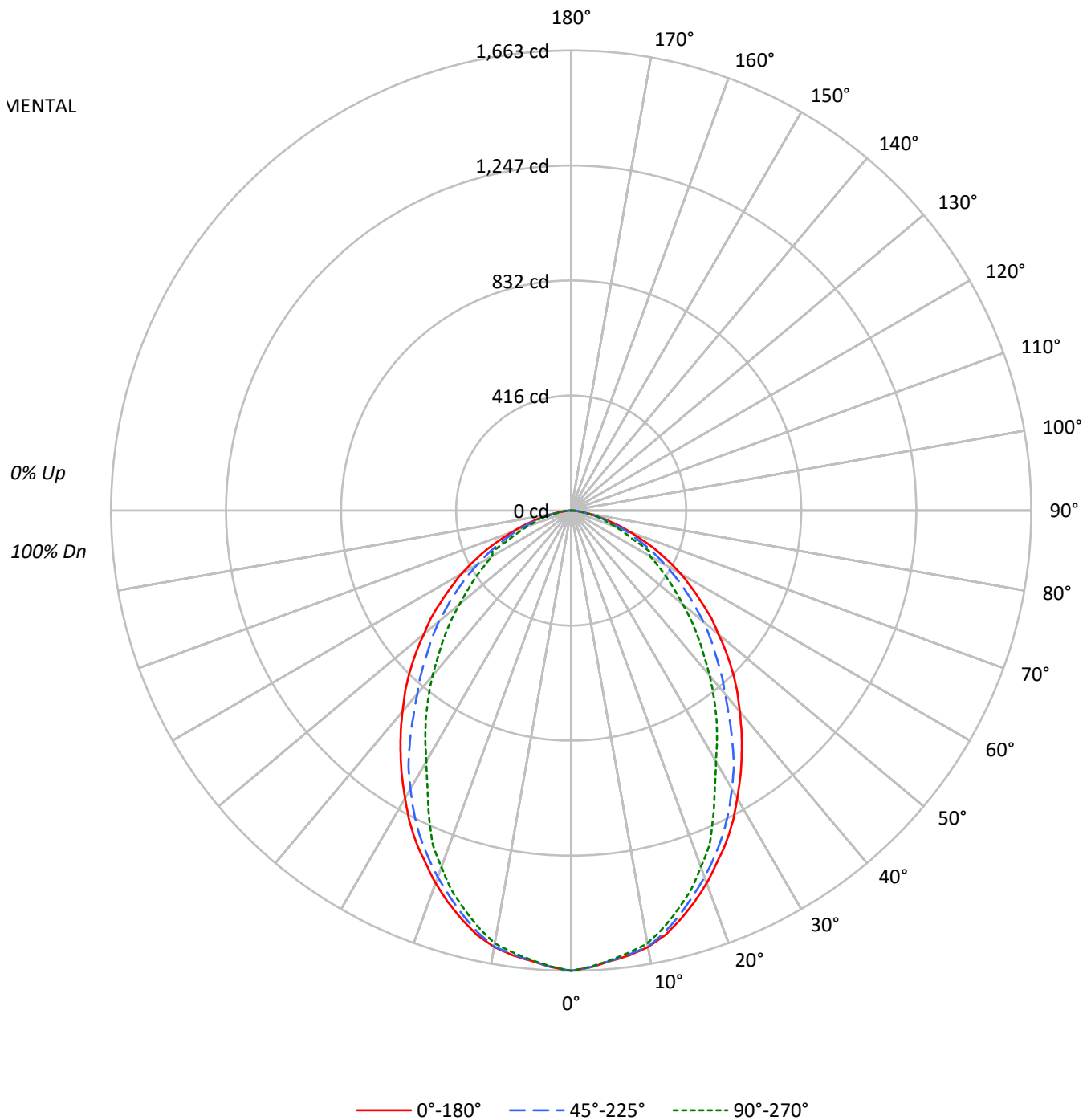
Input Watts (W): 33.3
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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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	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°	2238	2238	2238
5°	2207	2205	2202
10°	2188	2186	2170
15°	2129	2108	2078
20°	2051	2018	1963
25°	1967	1924	1804
30°	1864	1804	1625
35°	1765	1668	1503
40°	1665	1520	1368
45°	1569	1405	1237
50°	1453	1304	1103
55°	1344	1182	988
60°	1231	1055	885
65°	1083	924	784
70°	893	809	666
75°	710	620	650
80°	477	447	417
85°	296	357	415

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 1569 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	154.8	4.7
10°-20°	424.9	13.0
20°-30°	588.2	18.0
30°-40°	627.2	19.2
40°-50°	572.2	17.5
50°-60°	448.3	13.7
60°-70°	292.2	8.9
70°-80°	129.4	4.0
80°-90°	27.8	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°	1167.9	35.8
0°-40°	1795.1	55.0
0°-60°	2815.6	86.2
0°-90°	3265.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3265.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1663	1663	1663	1663	1663	
5°	1634	1632	1632	1630	1630	155
15°	1529	1529	1513	1498	1492	430
25°	1325	1317	1296	1250	1215	608
35°	1075	1067	1015	938	915	672
45°	825	808	738	677	650	635
55°	573	556	504	444	421	514
65°	340	321	290	296	246	335
75°	136	127	119	113	125	146
85°	19	21	23	25	27	27
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1663.1	1663.1	1663.1	1663.1	1663.1
2.5°	1651.6	1651.6	1651.6	1649.7	1649.7
5°	1634.3	1632.4	1632.4	1630.5	1630.5
7.5°	1620.8	1618.9	1617.0	1615.1	1611.2
10°	1601.6	1601.6	1599.7	1590.1	1588.2
12.5°	1570.9	1568.9	1561.2	1547.8	1543.9
15°	1528.6	1528.6	1513.2	1497.8	1492.0
17.5°	1482.4	1480.5	1461.3	1445.9	1438.2
20°	1432.4	1428.6	1409.3	1384.4	1370.9
22.5°	1376.7	1376.7	1353.6	1320.9	1307.4
25°	1324.7	1317.1	1295.9	1249.8	1215.2
27.5°	1265.1	1253.6	1230.5	1165.2	1124.8
30°	1199.8	1194.0	1161.3	1076.7	1046.0
32.5°	1138.2	1128.6	1094.0	1005.6	980.6
35°	1074.8	1067.1	1015.2	938.3	915.2
37.5°	1011.3	1001.7	936.4	874.8	846.0
40°	947.9	936.4	865.2	809.5	778.7
42.5°	888.3	872.9	803.7	744.1	709.5
45°	824.8	807.5	738.3	676.8	649.9
47.5°	761.4	746.0	682.6	619.1	588.4
50°	694.1	680.6	623.0	559.5	526.8
52.5°	638.3	617.2	561.4	498.0	471.1
55°	573.0	555.7	503.8	444.1	421.1
57.5°	513.4	496.1	448.0	392.2	373.0
60°	457.6	432.6	392.2	344.2	328.8
62.5°	396.1	376.9	342.2	301.9	321.1
65°	340.3	321.1	290.3	296.1	246.1
67.5°	278.8	269.2	242.3	215.3	207.7
70°	226.9	215.3	205.7	176.9	169.2
72.5°	180.7	169.2	155.7	140.4	134.6
75°	136.5	126.9	119.2	113.4	125.0
77.5°	94.2	90.4	84.6	78.8	76.9
80°	61.5	59.6	57.7	55.8	53.8
82.5°	36.5	36.5	36.5	36.5	36.5
85°	19.2	21.1	23.1	25.0	26.9
87.5°	11.5	11.5	13.5	15.4	17.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)