

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: P562269

Luminaire Tested: FSR-24-4-LD4-1LO-50-UNV-82-96-EDD

Issue Date: 7/20/2021

Test Information

Test Method: LM-79-2019
Report Number: P562269
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-LD4-1LO-50-UNV-82-96-EDD
Description: 2X4 FSR TROFFER WITH .187 CLEAR PC FIXTURE SIDE AND .250 CLEAR TEMPERED GLASS ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 5000K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2759.0 lumens
Efficiency: N/A
Efficacy: 117.9 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

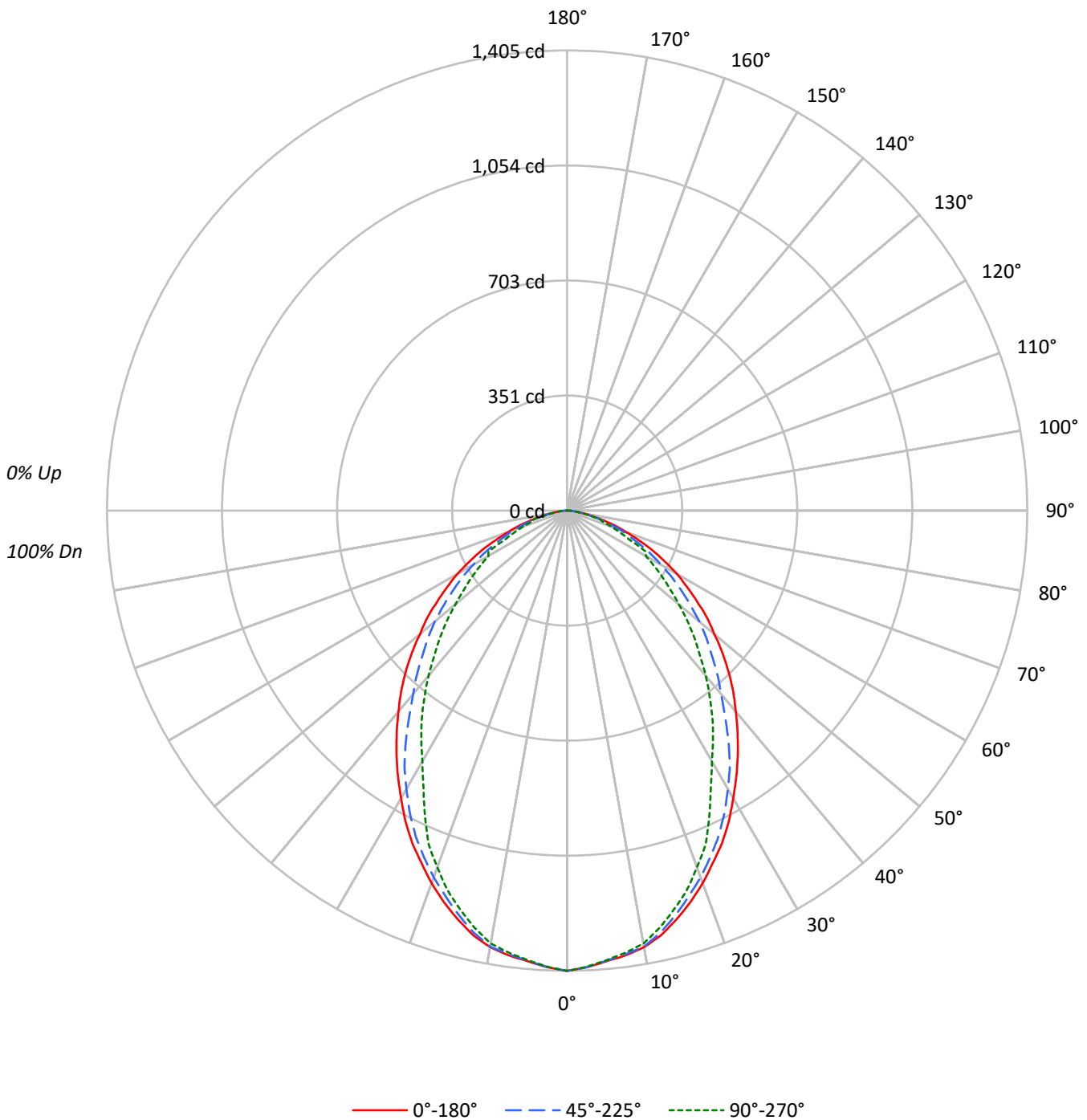
Input Watts (W): 23.4
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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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°	1891	1891	1891
5°	1865	1863	1861
10°	1849	1847	1834
15°	1799	1781	1756
20°	1733	1705	1659
25°	1662	1626	1524
30°	1575	1525	1373
35°	1492	1409	1270
40°	1407	1284	1156
45°	1326	1187	1045
50°	1228	1102	932
55°	1136	999	835
60°	1041	892	748
65°	916	781	662
70°	754	684	563
75°	600	523	549
80°	403	377	353
85°	250	301	350

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 1326 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	130.8	4.7
10°-20°	359.0	13.0
20°-30°	497.1	18.0
30°-40°	530.0	19.2
40°-50°	483.5	17.5
50°-60°	378.8	13.7
60°-70°	246.9	8.9
70°-80°	109.4	4.0
80°-90°	23.5	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°	986.9	35.8
0°-40°	1516.9	55.0
0°-60°	2379.2	86.2
0°-90°	2759.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2759.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1405	1405	1405	1405	1405	
5°	1381	1379	1379	1378	1378	131
15°	1292	1292	1279	1266	1261	363
25°	1119	1113	1095	1056	1027	514
35°	908	902	858	793	773	568
45°	697	682	624	572	549	537
55°	484	470	426	375	356	434
65°	288	271	245	250	208	283
75°	115	107	101	96	106	124
85°	16	18	20	21	23	23
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1405.4	1405.4	1405.4	1405.4	1405.4
2.5°	1395.6	1395.6	1395.6	1394.0	1394.0
5°	1381.0	1379.4	1379.4	1377.8	1377.8
7.5°	1369.7	1368.0	1366.4	1364.8	1361.5
10°	1353.4	1353.4	1351.8	1343.7	1342.0
12.5°	1327.4	1325.8	1319.3	1307.9	1304.7
15°	1291.7	1291.7	1278.7	1265.7	1260.8
17.5°	1252.7	1251.0	1234.8	1221.8	1215.3
20°	1210.4	1207.2	1190.9	1169.8	1158.4
22.5°	1163.3	1163.3	1143.8	1116.2	1104.8
25°	1119.4	1112.9	1095.1	1056.1	1026.8
27.5°	1069.1	1059.3	1039.8	984.6	950.5
30°	1013.8	1009.0	981.3	909.9	883.9
32.5°	961.8	953.7	924.5	849.7	828.6
35°	908.2	901.7	857.9	792.9	773.4
37.5°	854.6	846.5	791.2	739.3	714.9
40°	801.0	791.2	731.1	684.0	658.0
42.5°	750.6	737.6	679.1	628.8	599.5
45°	697.0	682.4	623.9	571.9	549.2
47.5°	643.4	630.4	576.8	523.2	497.2
50°	586.5	575.2	526.4	472.8	445.2
52.5°	539.4	521.5	474.4	420.8	398.1
55°	484.2	469.5	425.7	375.3	355.8
57.5°	433.8	419.2	378.6	331.4	315.2
60°	386.7	365.6	331.4	290.8	277.8
62.5°	334.7	318.4	289.2	255.1	271.3
65°	287.6	271.3	245.3	250.2	208.0
67.5°	235.6	227.5	204.7	182.0	175.5
70°	191.7	182.0	173.8	149.5	143.0
72.5°	152.7	143.0	131.6	118.6	113.7
75°	115.4	107.2	100.7	95.9	105.6
77.5°	79.6	76.4	71.5	66.6	65.0
80°	52.0	50.4	48.7	47.1	45.5
82.5°	30.9	30.9	30.9	30.9	30.9
85°	16.2	17.9	19.5	21.1	22.7
87.5°	9.7	9.7	11.4	13.0	14.6
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)