

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: P562296

Luminaire Tested: FSR-24-4-LD4-1STD-35-UNV-80-88-EDD-90

Issue Date: 7/20/2021

Test Information

Test Method: LM-79-2019
Report Number: P562296
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-80-88-EDD-90
Description: 2X4 FSR TROFFER WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND .500 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 3500K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2757.0 lumens
Efficiency: N/A
Efficacy: 82.8 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

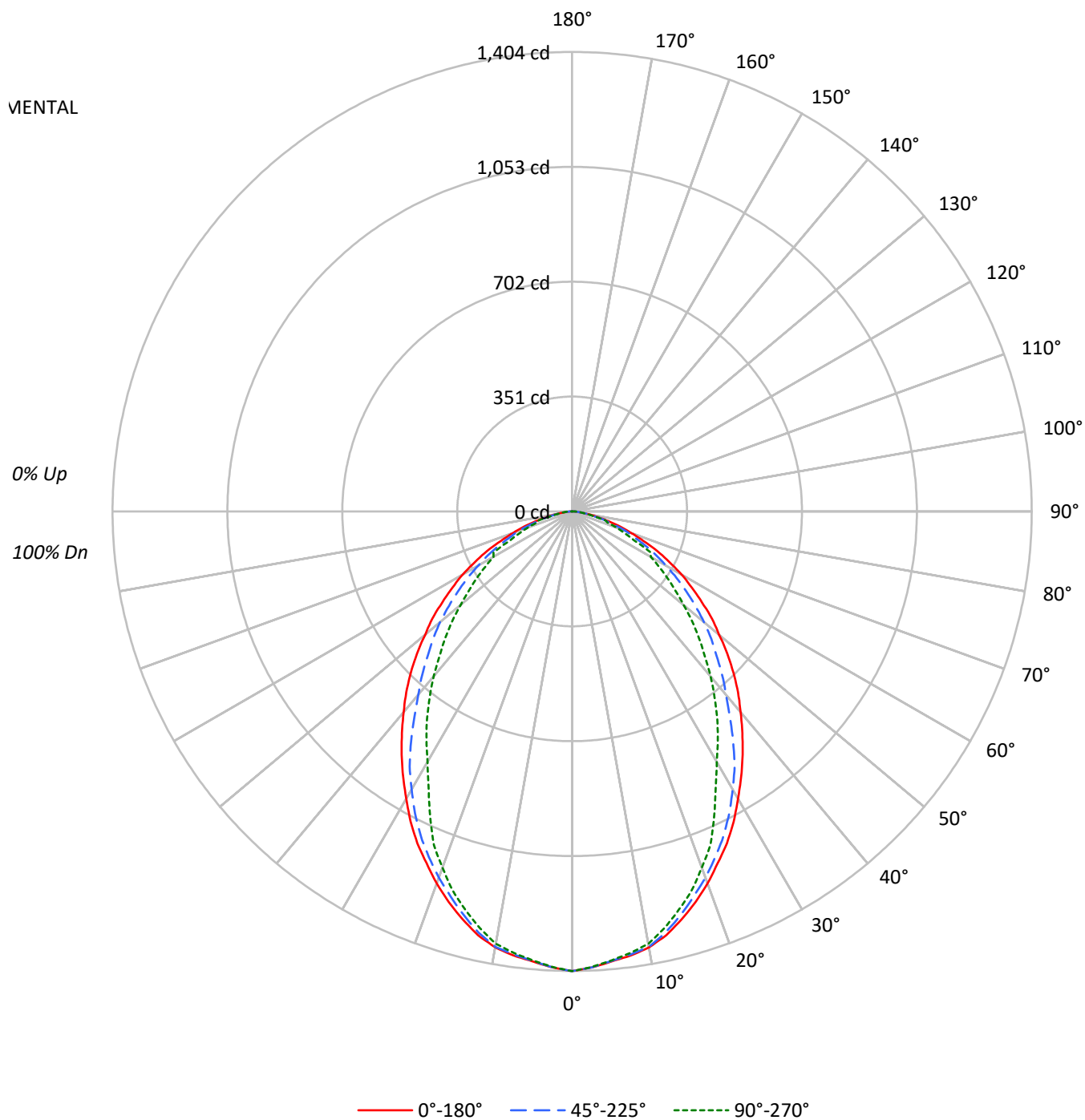
Input Watts (W): 33.3
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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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
RW	70	50	30	10		70	50	30	10		50	30	10		50	30	10		50	30	10	
RCR																						
0	119	119	119	119		116	116	116	116		111	111	111		106	106	106		102	102	102	
1	110	106	102	99		108	104	100	97		100	97	94		96	94	91		92	90	89	
2	101	94	88	83		99	92	87	82		89	84	80		86	82	78		83	79	77	
3	93	84	77	71		91	82	76	70		79	74	69		77	72	68		74	70	67	
4	86	75	67	61		84	74	66	61		72	65	60		69	64	59		67	62	58	
5	80	68	60	54		78	67	59	53		65	58	53		63	57	52		61	56	52	
6	74	62	53	48		72	61	53	47		59	52	47		57	51	47		56	50	46	
7	69	56	48	43		67	56	48	42		54	47	42		53	46	42		51	46	42	
8	65	52	44	38		63	51	44	38		50	43	38		49	42	38		48	42	38	
9	61	48	40	35		59	47	40	35		46	39	35		45	39	34		44	38	34	
10	57	44	37	32		56	44	37	32		43	36	32		42	36	32		41	36	32	

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	1890	1890	1890
5°	1864	1862	1860
10°	1848	1846	1832
15°	1798	1780	1755
20°	1732	1704	1657
25°	1661	1625	1523
30°	1574	1523	1372
35°	1491	1408	1269
40°	1406	1283	1155
45°	1325	1186	1044
50°	1227	1101	931
55°	1135	998	834
60°	1040	891	747
65°	915	781	662
70°	754	683	562
75°	599	523	548
80°	403	377	353
85°	250	301	350

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°

Vertical Angle: 45°

Luminance: 1325 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	130.7	4.7
10°-20°	358.8	13.0
20°-30°	496.7	18.0
30°-40°	529.6	19.2
40°-50°	483.2	17.5
50°-60°	378.5	13.7
60°-70°	246.7	8.9
70°-80°	109.3	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°	986.2	35.8
0°-40°	1515.8	55.0
0°-60°	2377.5	86.2
0°-90°	2757.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2757.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1404	1404	1404	1404	1404	
5°	1380	1378	1378	1377	1377	131
15°	1291	1291	1278	1265	1260	363
25°	1119	1112	1094	1055	1026	514
35°	908	901	857	792	773	567
45°	696	682	623	572	549	537
55°	484	469	425	375	356	434
65°	287	271	245	250	208	283
75°	115	107	101	96	106	124
85°	16	18	20	21	23	22
90°	0	0	0	0	0	

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1404.4	1404.4	1404.4	1404.4	1404.4
2.5°	1394.6	1394.6	1394.6	1393.0	1393.0
5°	1380.0	1378.4	1378.4	1376.8	1376.8
7.5°	1368.7	1367.0	1365.4	1363.8	1360.5
10°	1352.4	1352.4	1350.8	1342.7	1341.1
12.5°	1326.4	1324.8	1318.3	1307.0	1303.7
15°	1290.7	1290.7	1277.7	1264.8	1259.9
17.5°	1251.8	1250.1	1233.9	1220.9	1214.4
20°	1209.6	1206.3	1190.1	1169.0	1157.6
22.5°	1162.5	1162.5	1143.0	1115.4	1104.0
25°	1118.6	1112.1	1094.3	1055.3	1026.1
27.5°	1068.3	1058.6	1039.1	983.9	949.8
30°	1013.1	1008.2	980.6	909.2	883.2
32.5°	961.1	953.0	923.8	849.1	828.0
35°	907.6	901.1	857.2	792.3	772.8
37.5°	854.0	845.9	790.7	738.7	714.4
40°	800.4	790.7	730.6	683.5	657.5
42.5°	750.1	737.1	678.6	628.3	599.1
45°	696.5	681.9	623.4	571.5	548.8
47.5°	642.9	629.9	576.4	522.8	496.8
50°	586.1	574.7	526.0	472.5	444.9
52.5°	539.0	521.2	474.1	420.5	397.8
55°	483.8	469.2	425.4	375.0	355.6
57.5°	433.5	418.9	378.3	331.2	315.0
60°	386.4	365.3	331.2	290.6	277.6
62.5°	334.5	318.2	289.0	254.9	271.1
65°	287.4	271.1	245.2	250.0	207.8
67.5°	235.4	227.3	204.6	181.8	175.3
70°	191.6	181.8	173.7	149.4	142.9
72.5°	152.6	142.9	131.5	118.5	113.6
75°	115.3	107.2	100.7	95.8	105.5
77.5°	79.6	76.3	71.4	66.6	64.9
80°	52.0	50.3	48.7	47.1	45.5
82.5°	30.8	30.8	30.8	30.8	30.8
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)