

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: P560627

Luminaire Tested: FSR-12-2-LD4-2STD-40-UNV-80-85-EDD

Issue Date: 7/20/2021

Test Information

Test Method: LM-79-2019
Report Number: P560627
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-LD4-2STD-40-UNV-80-85-EDD
Description: 1X2 FSR TROFFER WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND .187 CLEAR PC ENVIRONM
SIDE LENSES WITH, 80 CRI AND 4000K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3020.0 lumens
Efficiency: N/A
Efficacy: 90.7 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

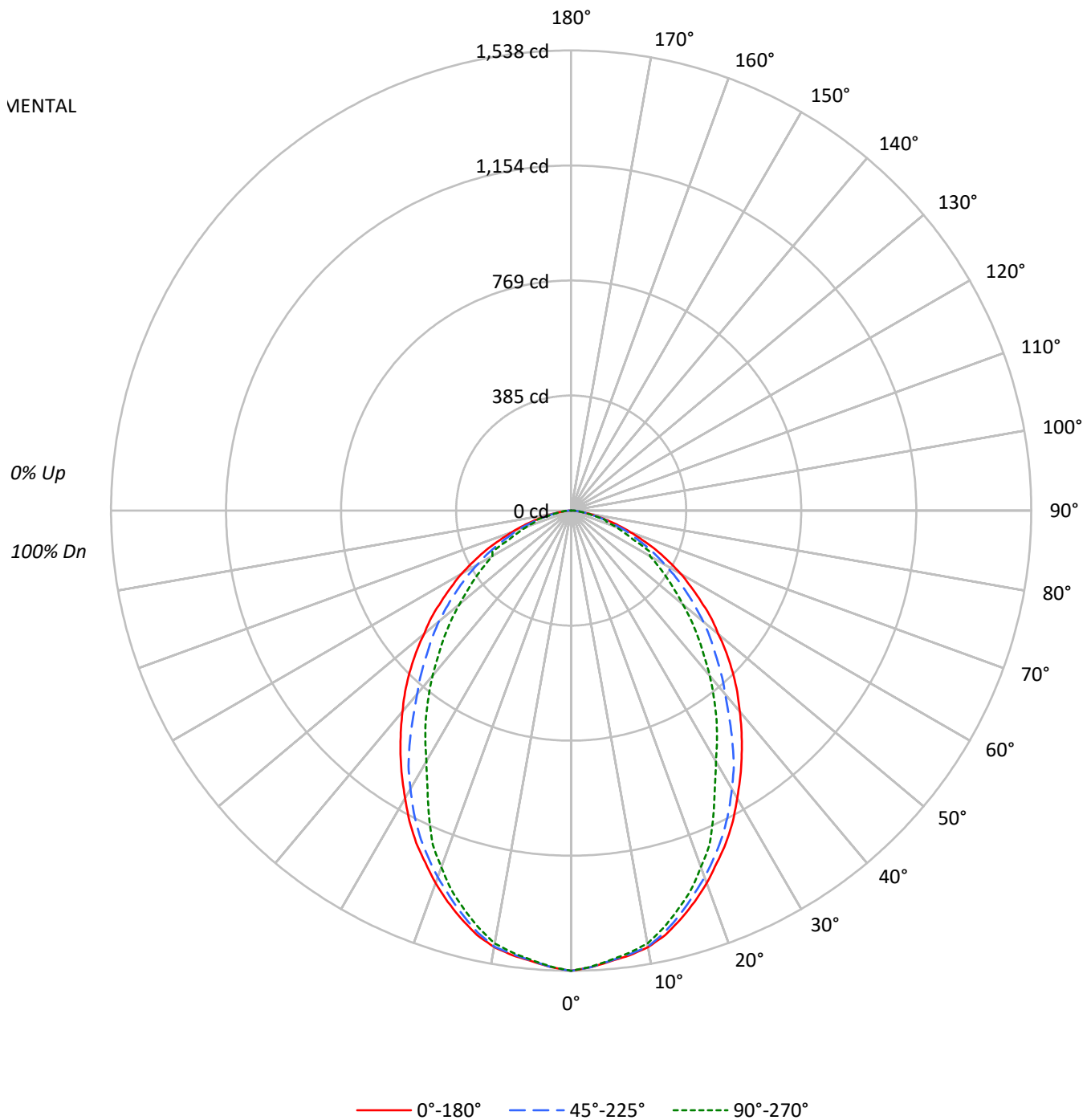
Input Watts (W): 33.3
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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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	0		
RCR																										
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100					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°	8279	8279	8279
5°	8167	8157	8148
10°	8096	8087	8028
15°	7878	7798	7690
20°	7588	7466	7262
25°	7276	7118	6675
30°	6896	6676	6013
35°	6531	6169	5562
40°	6160	5623	5061
45°	5807	5198	4575
50°	5375	4824	4080
55°	4973	4373	3655
60°	4556	3905	3273
65°	4009	3419	2898
70°	3303	2995	2463
75°	2626	2294	2404
80°	1764	1655	1543
85°	1099	1315	1538

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 5807 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	143.2	4.7
10°-20°	393.0	13.0
20°-30°	544.1	18.0
30°-40°	580.1	19.2
40°-50°	529.3	17.5
50°-60°	414.6	13.7
60°-70°	270.2	8.9
70°-80°	119.7	4.0
80°-90°	25.7	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°	1080.3	35.8
0°-40°	1660.4	55.0
0°-60°	2604.3	86.2
0°-90°	3020.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3020.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1538	1538	1538	1538	1538	
5°	1512	1510	1510	1508	1508	143
15°	1414	1414	1400	1385	1380	397
25°	1225	1218	1199	1156	1124	563
35°	994	987	939	868	846	622
45°	763	747	683	626	601	588
55°	530	514	466	411	390	475
65°	315	297	268	274	228	310
75°	126	117	110	105	116	135
85°	18	20	21	23	25	25
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1538.3	1538.3	1538.3	1538.3	1538.3
2.5°	1527.7	1527.7	1527.7	1525.9	1525.9
5°	1511.7	1509.9	1509.9	1508.1	1508.1
7.5°	1499.2	1497.4	1495.7	1493.9	1490.3
10°	1481.4	1481.4	1479.7	1470.8	1469.0
12.5°	1453.0	1451.2	1444.1	1431.6	1428.1
15°	1413.9	1413.9	1399.6	1385.4	1380.1
17.5°	1371.2	1369.4	1351.6	1337.4	1330.3
20°	1324.9	1321.4	1303.6	1280.5	1268.0
22.5°	1273.4	1273.4	1252.0	1221.8	1209.3
25°	1225.3	1218.2	1198.7	1156.0	1124.0
27.5°	1170.2	1159.5	1138.2	1077.7	1040.4
30°	1109.7	1104.4	1074.2	995.9	967.5
32.5°	1052.8	1043.9	1011.9	930.1	907.0
35°	994.1	987.0	939.0	867.9	846.5
37.5°	935.5	926.6	866.1	809.2	782.5
40°	876.8	866.1	800.3	748.7	720.3
42.5°	821.6	807.4	743.4	688.3	656.2
45°	762.9	746.9	682.9	626.0	601.1
47.5°	704.3	690.0	631.3	572.7	544.2
50°	642.0	629.6	576.2	517.5	487.3
52.5°	590.4	570.9	519.3	460.6	435.7
55°	530.0	514.0	466.0	410.8	389.5
57.5°	474.8	458.8	414.4	362.8	345.0
60°	423.3	400.1	362.8	318.3	304.1
62.5°	366.4	348.6	316.6	279.2	297.0
65°	314.8	297.0	268.5	273.9	227.6
67.5°	257.9	249.0	224.1	199.2	192.1
70°	209.9	199.2	190.3	163.6	156.5
72.5°	167.2	156.5	144.1	129.8	124.5
75°	126.3	117.4	110.3	104.9	115.6
77.5°	87.1	83.6	78.3	72.9	71.1
80°	56.9	55.1	53.4	51.6	49.8
82.5°	33.8	33.8	33.8	33.8	33.8
85°	17.8	19.6	21.3	23.1	24.9
87.5°	10.7	10.7	12.4	14.2	16.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)