

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: P560319

Luminaire Tested: FSR-12-2-LD4-2HI-50-UNV-80-97-EDD

Issue Date: 7/20/2021

Test Information

Test Method: LM-79-2019
Report Number: P560319
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-LD4-2HI-50-UNV-80-97-EDD
Description: 1X2 FSR TROFFER WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND .375 CLEAR TEMPERED G ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 5000K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

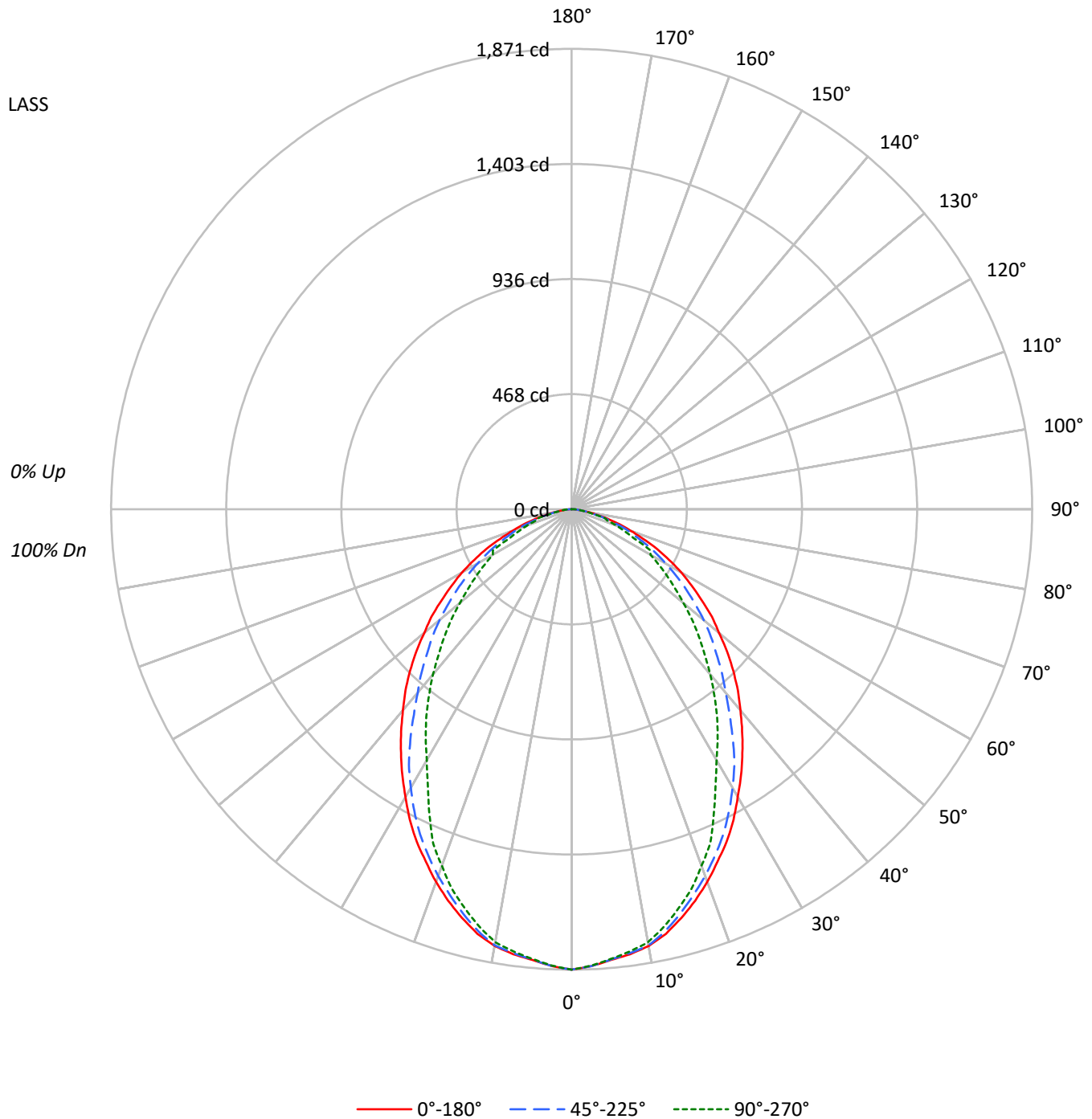
Lumens per Lamp: N/A
Luminaire Lumens: 3673.0 lumens
Efficiency: N/A
Efficacy: 85.0 lumens/watt
Spacing Criteria (0/90/45): 1.1 / 1 / 1.15
Luminous Opening: Rectangular (W 1' x L: 2' x H: 0')
CIE Type: Direct

Input Watts (W): 43.2
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°	10070	10070	10070
5°	9933	9921	9909
10°	9847	9835	9764
15°	9581	9485	9352
20°	9229	9081	8833
25°	8850	8657	8118
30°	8388	8119	7313
35°	7944	7504	6765
40°	7491	6838	6154
45°	7062	6322	5565
50°	6538	5868	4963
55°	6048	5317	4445
60°	5541	4749	3982
65°	4875	4159	3526
70°	4016	3641	2995
75°	3194	2789	2924
80°	2145	2011	1878
85°	1334	1606	1871

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 7062 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	174.2	4.7
10°-20°	478.0	13.0
20°-30°	661.7	18.0
30°-40°	705.6	19.2
40°-50°	643.7	17.5
50°-60°	504.3	13.7
60°-70°	328.7	8.9
70°-80°	145.6	4.0
80°-90°	31.3	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°	1313.9	35.8
0°-40°	2019.5	55.0
0°-60°	3167.4	86.2
0°-90°	3673.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3673.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1871	1871	1871	1871	1871	
5°	1838	1836	1836	1834	1834	175
15°	1720	1720	1702	1685	1678	483
25°	1490	1482	1458	1406	1367	684
35°	1209	1200	1142	1056	1030	756
45°	928	908	831	761	731	715
55°	645	625	567	500	474	578
65°	383	361	327	333	277	377
75°	154	143	134	128	141	165
85°	22	24	26	28	30	30
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1871.0	1871.0	1871.0	1871.0	1871.0
2.5°	1858.0	1858.0	1858.0	1855.8	1855.8
5°	1838.5	1836.4	1836.4	1834.2	1834.2
7.5°	1823.4	1821.2	1819.1	1816.9	1812.6
10°	1801.8	1801.8	1799.6	1788.8	1786.6
12.5°	1767.2	1765.0	1756.3	1741.2	1736.9
15°	1719.6	1719.6	1702.3	1685.0	1678.5
17.5°	1667.7	1665.5	1643.9	1626.6	1617.9
20°	1611.4	1607.1	1585.5	1557.3	1542.2
22.5°	1548.7	1548.7	1522.7	1486.0	1470.8
25°	1490.3	1481.6	1457.8	1405.9	1367.0
27.5°	1423.2	1410.3	1384.3	1310.8	1265.3
30°	1349.7	1343.2	1306.4	1211.3	1176.7
32.5°	1280.5	1269.7	1230.7	1131.2	1103.1
35°	1209.1	1200.5	1142.1	1055.5	1029.6
37.5°	1137.7	1126.9	1053.4	984.2	951.7
40°	1066.3	1053.4	973.3	910.6	876.0
42.5°	999.3	982.0	904.1	837.1	798.1
45°	927.9	908.5	830.6	761.4	731.1
47.5°	856.5	839.2	767.9	696.5	661.9
50°	780.8	765.7	700.8	629.4	592.7
52.5°	718.1	694.3	631.6	560.2	529.9
55°	644.6	625.1	566.7	499.6	473.7
57.5°	577.5	558.0	504.0	441.2	419.6
60°	514.8	486.7	441.2	387.2	369.9
62.5°	445.6	423.9	385.0	339.6	361.2
65°	382.8	361.2	326.6	333.1	276.9
67.5°	313.6	302.8	272.5	242.3	233.6
70°	255.2	242.3	231.4	199.0	190.3
72.5°	203.3	190.3	175.2	157.9	151.4
75°	153.6	142.8	134.1	127.6	140.6
77.5°	106.0	101.7	95.2	88.7	86.5
80°	69.2	67.1	64.9	62.7	60.6
82.5°	41.1	41.1	41.1	41.1	41.1
85°	21.6	23.8	26.0	28.1	30.3
87.5°	13.0	13.0	15.1	17.3	19.5
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)