

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: P560183

Luminaire Tested: FSR-12-2-LD4-2HI-35-UNV-80-87-EDD

Issue Date: 7/20/2021

Test Information

Test Method: LM-79-2019
Report Number: P560183
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-35-UNV-80-87-EDD
Description: 1X2 FSR TROFFER WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND .375 CLEAR PC ENVIRON
SIDE LENSES WITH, 80 CRI AND 3500K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

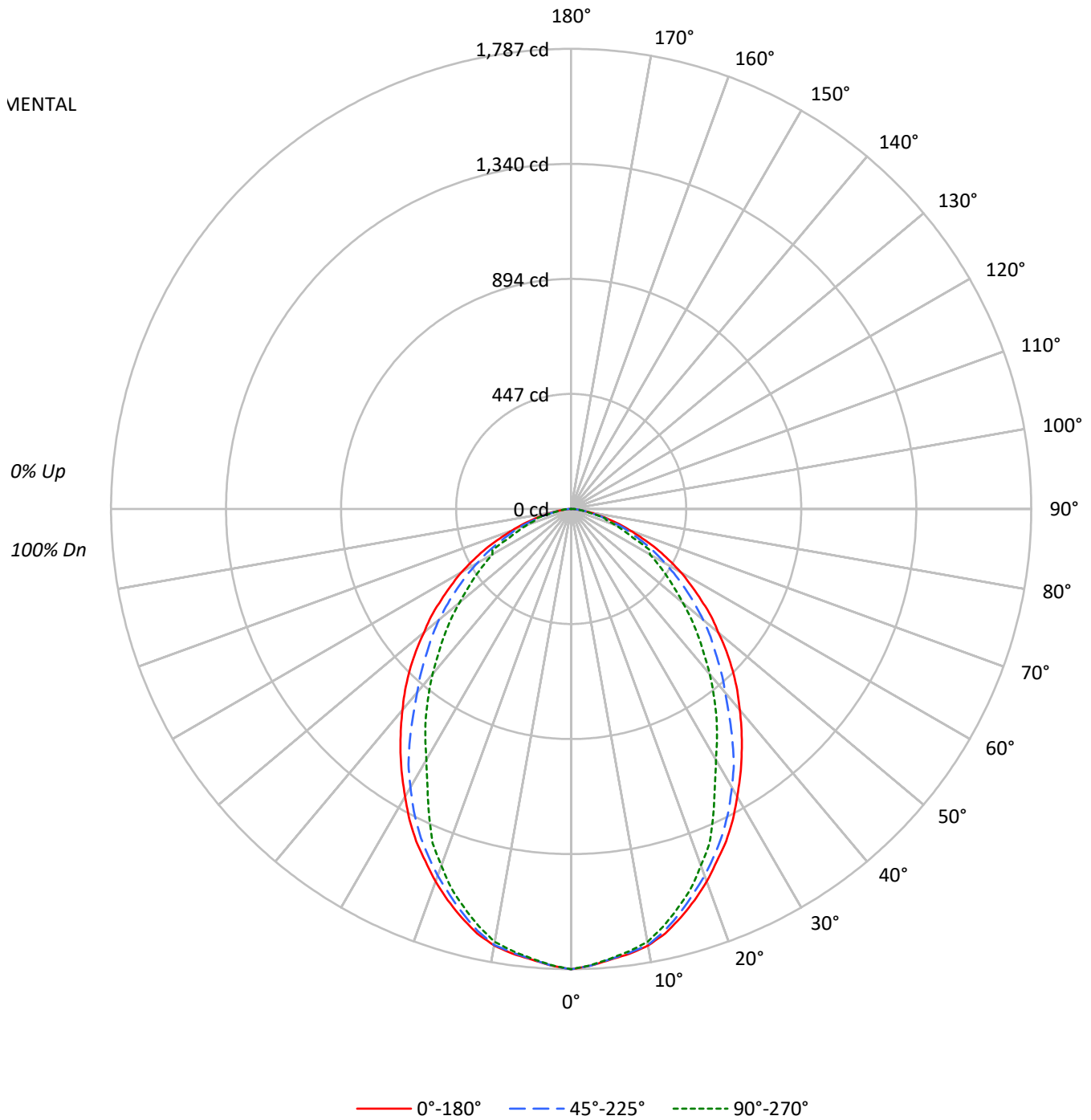
Lumens per Lamp: N/A
Luminaire Lumens: 3509.0 lumens
Efficiency: N/A
Efficacy: 81.2 lumens/watt
Spacing Criteria (0/90/45): 1.1 / 1 / 1.15
Luminous Opening: Rectangular (W 1' x L: 2' x H: 0')
CIE Type: Direct

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°	9620	9620	9620
5°	9489	9478	9467
10°	9407	9395	9328
15°	9153	9061	8934
20°	8817	8675	8438
25°	8455	8271	7755
30°	8013	7756	6986
35°	7589	7169	6462
40°	7157	6533	5880
45°	6747	6040	5316
50°	6246	5606	4741
55°	5778	5080	4246
60°	5294	4537	3804
65°	4658	3973	3368
70°	3836	3479	2861
75°	3051	2664	2793
80°	2049	1922	1795
85°	1278	1531	1785

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 6747 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	166.4	4.7
10°-20°	456.6	13.0
20°-30°	632.2	18.0
30°-40°	674.1	19.2
40°-50°	615.0	17.5
50°-60°	481.8	13.7
60°-70°	314.0	8.9
70°-80°	139.1	4.0
80°-90°	29.9	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°	1255.2	35.8
0°-40°	1929.3	55.0
0°-60°	3026.0	86.2
0°-90°	3509.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3509.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1787	1787	1787	1787	1787	
5°	1756	1754	1754	1752	1752	167
15°	1643	1643	1626	1610	1604	462
25°	1424	1416	1393	1343	1306	654
35°	1155	1147	1091	1008	984	722
45°	886	868	794	727	698	683
55°	616	597	541	477	452	552
65°	366	345	312	318	264	360
75°	147	136	128	122	134	157
85°	21	23	25	27	29	29
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1787.4	1787.4	1787.4	1787.4	1787.4
2.5°	1775.0	1775.0	1775.0	1773.0	1773.0
5°	1756.4	1754.4	1754.4	1752.3	1752.3
7.5°	1742.0	1739.9	1737.8	1735.8	1731.6
10°	1721.3	1721.3	1719.2	1708.9	1706.8
12.5°	1688.3	1686.2	1677.9	1663.5	1659.3
15°	1642.8	1642.8	1626.3	1609.7	1603.5
17.5°	1593.2	1591.1	1570.5	1553.9	1545.7
20°	1539.5	1535.3	1514.7	1487.8	1473.3
22.5°	1479.5	1479.5	1454.7	1419.6	1405.2
25°	1423.8	1415.5	1392.8	1343.2	1306.0
27.5°	1359.7	1347.3	1322.5	1252.2	1208.8
30°	1289.4	1283.2	1248.1	1157.2	1124.1
32.5°	1223.3	1213.0	1175.8	1080.7	1053.9
35°	1155.1	1146.9	1091.1	1008.4	983.6
37.5°	1086.9	1076.6	1006.3	940.2	909.2
40°	1018.7	1006.3	929.9	870.0	836.9
42.5°	954.7	938.1	863.8	799.7	762.5
45°	886.5	867.9	793.5	727.4	698.4
47.5°	818.3	801.8	733.6	665.4	632.3
50°	746.0	731.5	669.5	601.3	566.2
52.5°	686.0	663.3	603.4	535.2	506.3
55°	615.8	597.2	541.4	477.3	452.5
57.5°	551.7	533.1	481.5	421.5	400.9
60°	491.8	464.9	421.5	369.9	353.4
62.5°	425.7	405.0	367.8	324.4	345.1
65°	365.8	345.1	312.0	318.2	264.5
67.5°	299.6	289.3	260.4	231.4	223.2
70°	243.8	231.4	221.1	190.1	181.8
72.5°	194.2	181.8	167.4	150.8	144.6
75°	146.7	136.4	128.1	121.9	134.3
77.5°	101.3	97.1	90.9	84.7	82.7
80°	66.1	64.1	62.0	59.9	57.9
82.5°	39.3	39.3	39.3	39.3	39.3
85°	20.7	22.7	24.8	26.9	28.9
87.5°	12.4	12.4	14.5	16.5	18.6
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)