

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: P560237

Luminaire Tested: FSR-12-2-LD4-2HI-35-UNV-93-96-EDD

Issue Date: 7/20/2021

**Test Information**

Test Method: LM-79-2019  
Report Number: P560237  
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-93-96-EDD  
Description: 1X2 FSR TROFFER WITH .156 CLEAR TEMPERED GLASS FIXTURE SIDE AND .250 CLEAR TEMPER  
GLASS ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 3500K CCT LEDS  
Light Source: -  
Ballast/Driver: -

**Summary**

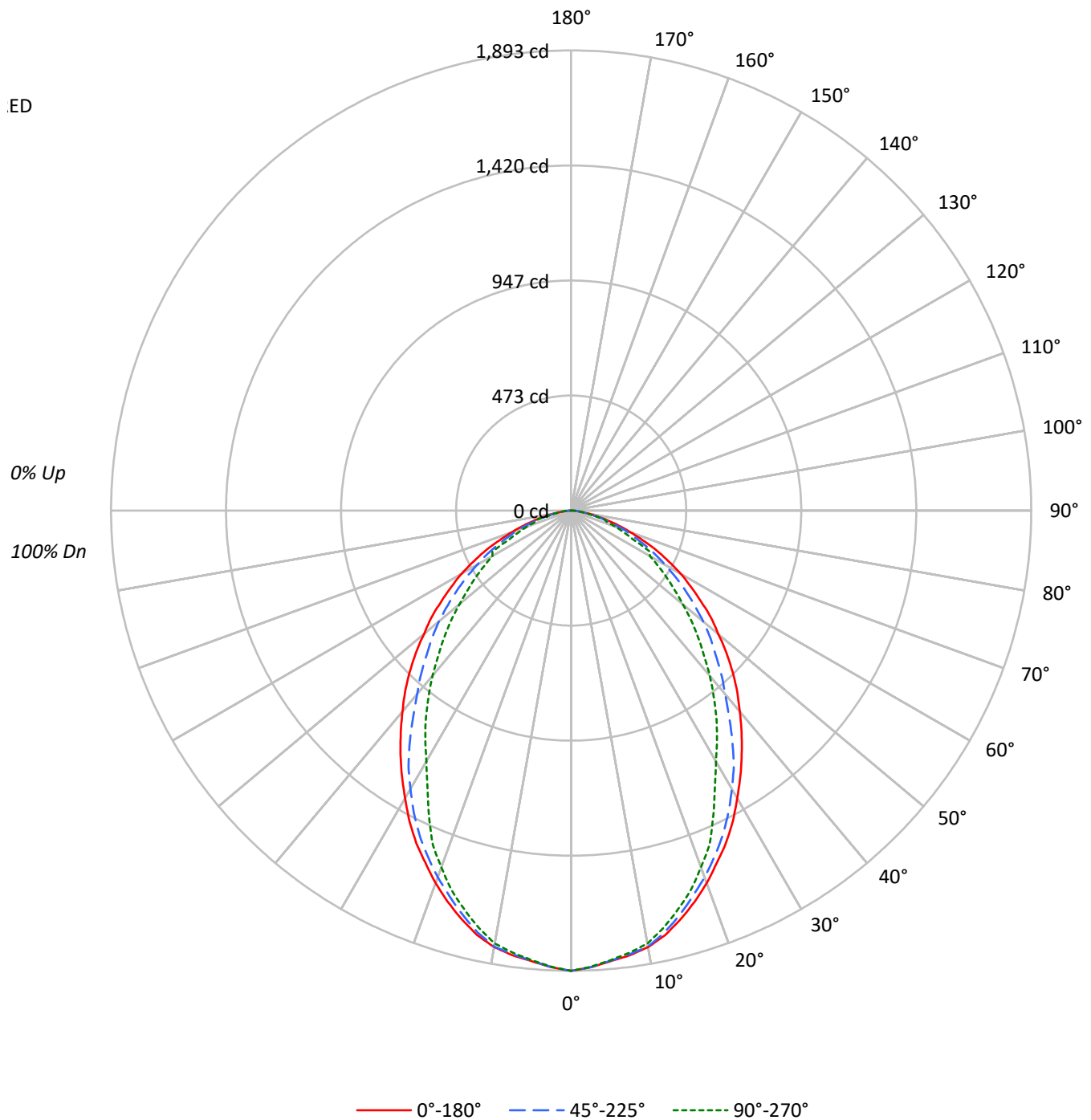
Lumens per Lamp: N/A  
Luminaire Lumens: 3717.0 lumens  
Efficiency: N/A  
Efficacy: 86.0 lumens/watt  
Spacing Criteria (0/90/45): 1.1 / 1 / 1.15  
Luminous Opening: Rectangular (W 1' x L: 2' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 43.2  
Input Voltage (V):  
Input Current (Ain): NR  
Voltage 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	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									87																			
2	101	94	88	83	99	92	87	82	89	84	80	86	82	78	83	79	77	75									75																			
3	93	84	77	71	91	82	76	70	79	74	69	77	72	68	74	70	67	65									65																			
4	86	75	67	61	84	74	66	61	72	65	60	69	64	59	67	62	58	56									56																			
5	80	68	60	54	78	67	59	53	65	58	53	63	57	52	61	56	52	50									50																			
6	74	62	53	48	72	61	53	47	59	52	47	57	51	47	56	50	46	44									44																			
7	69	56	48	43	67	56	48	42	54	47	42	53	46	42	51	46	42	40									40																			
8	65	52	44	38	63	51	44	38	50	43	38	49	42	38	48	42	38	36									36																			
9	61	48	40	35	59	47	40	35	46	39	35	45	39	34	44	38	34	33									33																			
10	57	44	37	32	56	44	37	32	43	36	32	42	36	32	41	36	32	30									30																			

**AVERAGE LUMINANCE (cd/sqm):**

	0°	45°	90°
0°	10190	10190	10190
5°	10052	10040	10028
10°	9964	9953	9881
15°	9696	9599	9464
20°	9340	9190	8939
25°	8956	8761	8215
30°	8488	8216	7400
35°	8039	7593	6845
40°	7581	6920	6228
45°	7147	6397	5631
50°	6616	5938	5022
55°	6121	5381	4498
60°	5608	4806	4029
65°	4933	4209	3568
70°	4065	3685	3031
75°	3231	2822	2959
80°	2170	2036	1900
85°	1352	1624	1890

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 7147 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	176.3	4.7
10°-20°	483.7	13.0
20°-30°	669.7	18.0
30°-40°	714.0	19.2
40°-50°	651.4	17.5
50°-60°	510.3	13.7
60°-70°	332.6	8.9
70°-80°	147.4	4.0
80°-90°	31.6	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°	1329.6	35.8
0°-40°	2043.6	55.0
0°-60°	3205.4	86.2
0°-90°	3717.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3717.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1893	1893	1893	1893	1893	
5°	1861	1858	1858	1856	1856	177
15°	1740	1740	1723	1705	1699	489
25°	1508	1499	1475	1423	1383	692
35°	1224	1215	1156	1068	1042	765
45°	939	919	840	770	740	723
55°	652	633	574	506	479	585
65°	387	366	330	337	280	382
75°	155	144	136	129	142	167
85°	22	24	26	28	31	30
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1893.4	1893.4	1893.4	1893.4	1893.4
2.5°	1880.3	1880.3	1880.3	1878.1	1878.1
5°	1860.6	1858.4	1858.4	1856.2	1856.2
7.5°	1845.2	1843.0	1840.9	1838.7	1834.3
10°	1823.3	1823.3	1821.2	1810.2	1808.0
12.5°	1788.3	1786.1	1777.4	1762.1	1757.7
15°	1740.2	1740.2	1722.7	1705.1	1698.6
17.5°	1687.6	1685.4	1663.6	1646.0	1637.3
20°	1630.7	1626.3	1604.5	1576.0	1560.7
22.5°	1567.2	1567.2	1541.0	1503.8	1488.4
25°	1508.1	1499.4	1475.3	1422.8	1383.4
27.5°	1440.3	1427.2	1400.9	1326.5	1280.5
30°	1365.9	1359.3	1322.1	1225.8	1190.8
32.5°	1295.8	1284.9	1245.5	1144.8	1116.3
35°	1223.6	1214.8	1155.7	1068.2	1041.9
37.5°	1151.4	1140.4	1066.0	995.9	963.1
40°	1079.1	1066.0	985.0	921.5	886.5
42.5°	1011.3	993.8	915.0	847.1	807.7
45°	939.0	919.3	840.5	770.5	739.8
47.5°	866.8	849.3	777.1	704.8	669.8
50°	790.2	774.9	709.2	637.0	599.8
52.5°	726.7	702.6	639.2	566.9	536.3
55°	652.3	632.6	573.5	505.6	479.4
57.5°	584.4	564.7	510.0	446.5	424.6
60°	521.0	492.5	446.5	391.8	374.3
62.5°	450.9	429.0	389.6	343.7	365.5
65°	387.4	365.5	330.5	337.1	280.2
67.5°	317.4	306.4	275.8	245.2	236.4
70°	258.3	245.2	234.2	201.4	192.6
72.5°	205.8	192.6	177.3	159.8	153.2
75°	155.4	144.5	135.7	129.1	142.3
77.5°	107.3	102.9	96.3	89.7	87.6
80°	70.0	67.9	65.7	63.5	61.3
82.5°	41.6	41.6	41.6	41.6	41.6
85°	21.9	24.1	26.3	28.5	30.6
87.5°	13.1	13.1	15.3	17.5	19.7
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)