

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: P560245

Luminaire Tested: FSR-12-2-LD4-2HI-40-UNV-80-86-EDD

Issue Date: 7/20/2021

Test Information

Test Method: LM-79-2019
Report Number: P560245
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-40-UNV-80-86-EDD
Description: 1X2 FSR TROFFER WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND .250 CLEAR PC ENVIRON
SIDE LENSES WITH, 80 CRI AND 4000K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

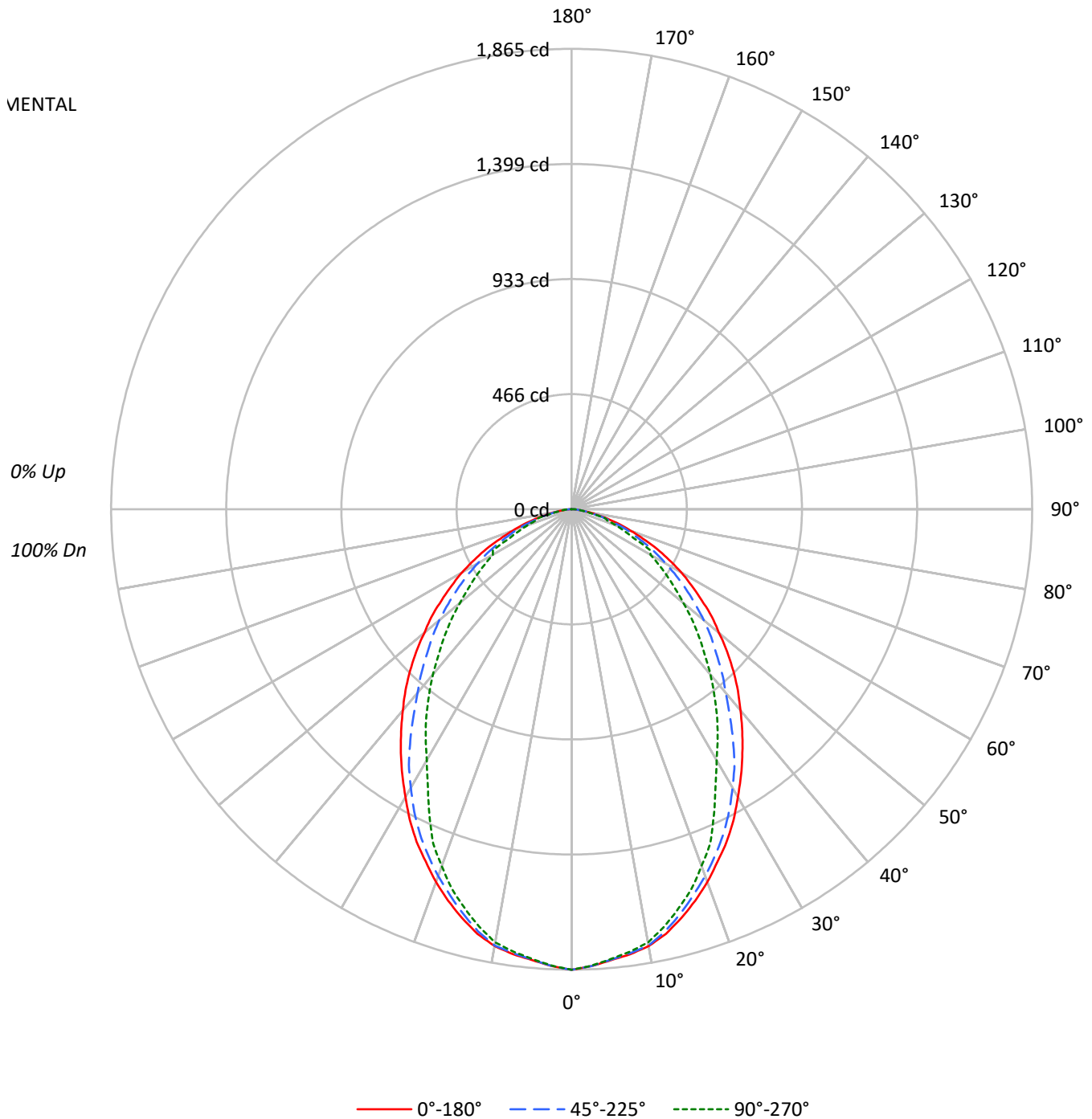
Lumens per Lamp: N/A
Luminaire Lumens: 3662.0 lumens
Efficiency: N/A
Efficacy: 84.8 lumens/watt
Spacing Criteria (0/90/45): 1.1 / 1 / 1.15
Luminous Opening: Rectangular (W 1' x L: 2' x H: 0')
CIE Type: Direct

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					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°	10040	10040	10040
5°	9903	9891	9880
10°	9817	9805	9735
15°	9552	9456	9324
20°	9202	9053	8806
25°	8823	8631	8093
30°	8363	8094	7290
35°	7920	7481	6744
40°	7470	6818	6136
45°	7041	6303	5548
50°	6518	5850	4948
55°	6030	5301	4432
60°	5524	4735	3970
65°	4861	4146	3515
70°	4005	3630	2987
75°	3184	2780	2915
80°	2139	2005	1872
85°	1334	1599	1865

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 7041 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	173.6	4.7
10°-20°	476.5	13.0
20°-30°	659.7	18.0
30°-40°	703.5	19.2
40°-50°	641.8	17.5
50°-60°	502.8	13.7
60°-70°	327.7	8.9
70°-80°	145.2	4.0
80°-90°	31.2	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°	1309.9	35.8
0°-40°	2013.4	55.0
0°-60°	3158.0	86.2
0°-90°	3662.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3662.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1865	1865	1865	1865	1865	
5°	1833	1831	1831	1829	1829	174
15°	1714	1714	1697	1680	1673	482
25°	1486	1477	1454	1402	1363	682
35°	1206	1197	1139	1052	1026	754
45°	925	906	828	759	729	713
55°	643	623	565	498	472	576
65°	382	360	326	332	276	376
75°	153	142	134	127	140	164
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°	1865.4	1865.4	1865.4	1865.4	1865.4
2.5°	1852.4	1852.4	1852.4	1850.3	1850.3
5°	1833.0	1830.9	1830.9	1828.7	1828.7
7.5°	1817.9	1815.8	1813.6	1811.5	1807.1
10°	1796.4	1796.4	1794.2	1783.4	1781.3
12.5°	1761.9	1759.7	1751.1	1736.0	1731.7
15°	1714.4	1714.4	1697.2	1679.9	1673.4
17.5°	1662.7	1660.5	1638.9	1621.7	1613.1
20°	1606.6	1602.3	1580.7	1552.7	1537.6
22.5°	1544.1	1544.1	1518.2	1481.5	1466.4
25°	1485.8	1477.2	1453.5	1401.7	1362.9
27.5°	1419.0	1406.0	1380.2	1306.8	1261.6
30°	1345.7	1339.2	1302.5	1207.6	1173.1
32.5°	1276.6	1265.9	1227.0	1127.9	1099.8
35°	1205.5	1196.9	1138.6	1052.4	1026.5
37.5°	1134.3	1123.5	1050.2	981.2	948.9
40°	1063.2	1050.2	970.4	907.9	873.4
42.5°	996.3	979.1	901.4	834.6	795.7
45°	925.1	905.7	828.1	759.1	728.9
47.5°	854.0	836.7	765.6	694.4	659.9
50°	778.5	763.4	698.7	627.5	590.9
52.5°	716.0	692.2	629.7	558.5	528.3
55°	642.6	623.2	565.0	498.2	472.3
57.5°	575.8	556.4	502.5	439.9	418.4
60°	513.2	485.2	439.9	386.0	368.8
62.5°	444.2	422.7	383.9	338.6	360.1
65°	381.7	360.1	325.6	332.1	276.0
67.5°	312.7	301.9	271.7	241.5	232.9
70°	254.5	241.5	230.7	198.4	189.8
72.5°	202.7	189.8	174.7	157.4	151.0
75°	153.1	142.3	133.7	127.2	140.2
77.5°	105.7	101.4	94.9	88.4	86.3
80°	69.0	66.9	64.7	62.5	60.4
82.5°	41.0	41.0	41.0	41.0	41.0
85°	21.6	23.7	25.9	28.0	30.2
87.5°	12.9	12.9	15.1	17.3	19.4
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)