

Scaled data based on original data using  
LM-79-08 Approved Method: Electrical and Photometric Measurements of Solid-State  
Lighting Products

Test Report Prepared for

Cooper Lighting Solutions

(formerly Eaton)

Brand: FAIL-SAFE

Report Number: P312775

Luminaire Tested: **22FCZ2-24HE-UNV-L83050-CP125-W2A-U-3000K**

Issue Date: 3/3/2020

This test was performed under the Supervised Manufacturer's Testing Program. The results of this test have not been influenced by sources from within Cooper Lighting Solutions or from external interests.

**Test Information**

Test Method: LM-79-08  
Report Number: P312775  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1805-783-33)  
Test Lab: INNOVATION CENTER(G3)  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: FAIL-SAFE  
Catalog Number: 22FCZ2-24HE-UNV-L83050-CP125-W2A-U-3000K  
Description: 2'X2' TROFFER LED MODULE, RIBBED LENS, 0.125" POLYCARB SHEET  
Light Source: (168) 3000K TUNABLE CCT, 80 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER  
Luminaire Equipment:

<u>Sample No.</u>	<u>Condition</u>	<u>Description</u>
AS-5443-1	Good	WHITE TWIN R-EVOLVE FLOOD
AS-5443-2	Good	REFLECTOR
AS-5443-3	Good	DRIVER
AS-5443-4	Good	UPPER MODULE
AS-5443-5	Good	LENS
AS-5443-6	Good	DRIVER 2
AS-5443-7	Good	TRIM RING

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 2027.0 lumens  
Efficiency: N/A  
Efficacy: 107.2 lumens/watt  
Spacing Criteria (0/90/45): 1.2 / 1.28 / 1.37  
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')  
CIE Type: Direct

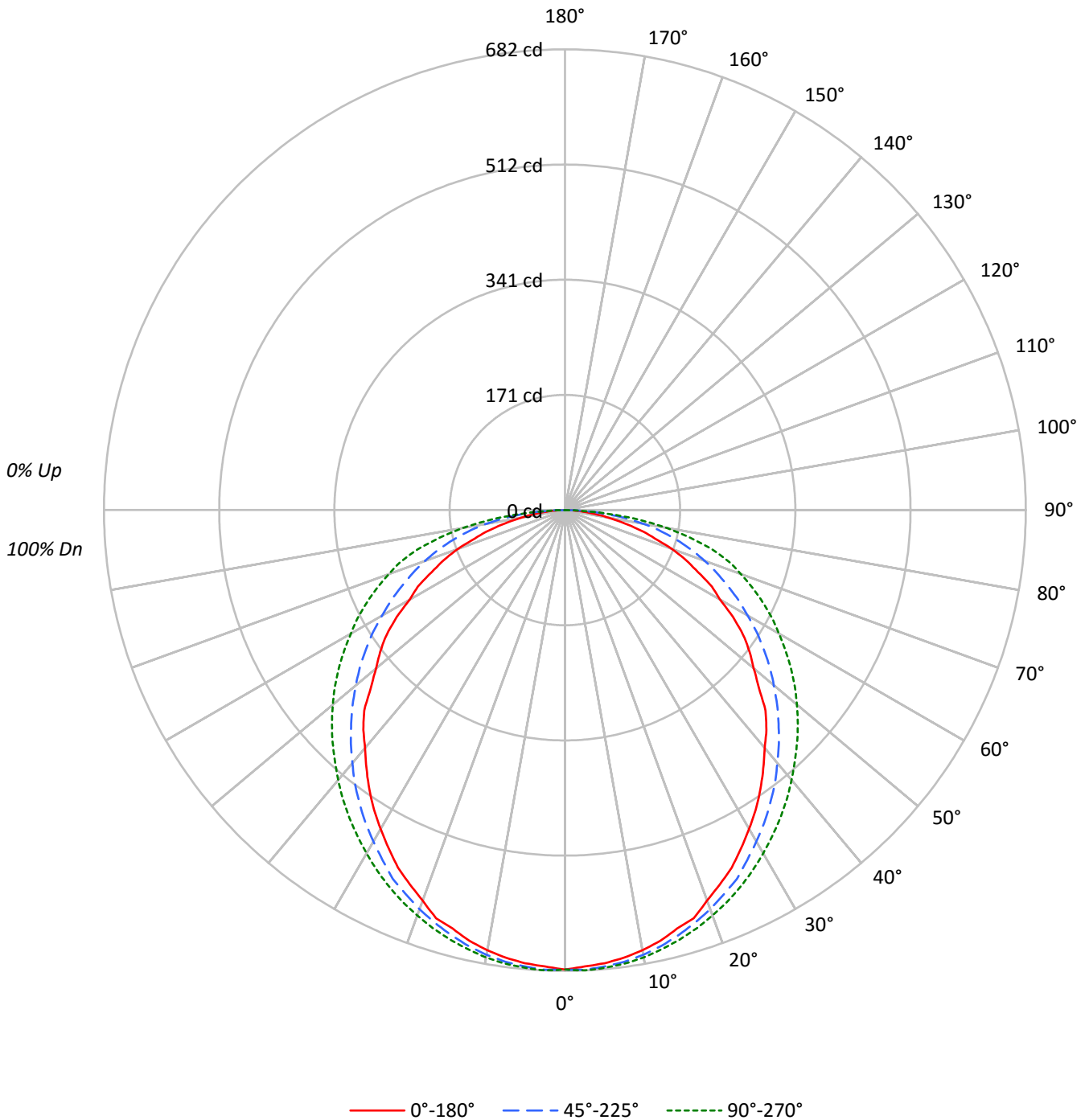
Input Watts (W): 18.9  
Input Voltage (V): NR  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	0
RCR																		
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100
1	108	103	98	94	105	100	96	92	96	93	90	92	89	87	89	86	84	82
2	98	89	82	76	95	87	80	75	83	78	73	80	75	71	77	73	70	67
3	89	78	69	62	86	76	68	62	73	66	61	70	64	60	68	63	59	56
4	81	69	60	53	79	67	59	52	65	57	51	62	56	51	60	55	50	48
5	74	61	52	45	72	60	51	45	58	50	44	56	49	44	54	48	43	41
6	69	55	46	39	67	54	45	39	52	44	39	51	44	38	49	43	38	36
7	64	50	41	35	62	49	40	34	47	40	34	46	39	34	45	38	34	32
8	59	45	37	31	58	45	36	31	43	36	30	42	35	30	41	35	30	28
9	55	42	33	28	54	41	33	28	40	33	27	39	32	27	38	32	27	25
10	52	38	30	25	51	38	30	25	37	30	25	36	29	25	35	29	25	23

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

	0°	45°	90°
0°	1830	1830	1830
5°	1819	1832	1837
10°	1808	1826	1837
15°	1787	1814	1833
20°	1761	1800	1828
25°	1734	1789	1826
30°	1694	1761	1824
35°	1657	1740	1826
40°	1616	1718	1833
45°	1599	1702	1850
50°	1527	1690	1876
55°	1511	1684	1916
60°	1426	1681	1968
65°	1384	1692	2057
70°	1328	1733	2183
75°	1210	1785	2350
80°	1037	1849	2376
85°	840	1766	2038



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	64.4	3.2
10°-20°	183.6	9.1
20°-30°	276.3	13.6
30°-40°	331.6	16.4
40°-50°	346.6	17.1
50°-60°	323.0	15.9
60°-70°	264.9	13.1
70°-80°	178.5	8.8
80°-90°	58.1	2.9
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°	524.2	25.9
0°-40°	855.8	42.2
0°-60°	1525.4	75.3
0°-90°	2027.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2027.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	680	680	680	680	680	
5°	673	675	678	679	680	64
15°	641	645	651	657	658	181
25°	584	588	602	611	615	268
35°	504	511	530	548	556	315
45°	420	423	447	474	486	321
55°	322	328	359	393	408	285
65°	217	227	266	305	323	216
75°	116	129	172	210	226	122
85°	27	39	57	67	66	32
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	680.1	680.1	680.1	680.1	680.1
2.5°	676.2	678.1	681.0	682.0	682.0
5°	673.3	675.2	678.1	679.1	680.1
7.5°	668.4	670.4	674.3	676.2	677.2
10°	661.6	663.6	668.4	671.3	672.3
12.5°	652.9	654.9	660.7	664.6	665.5
15°	641.3	645.2	651.0	656.8	657.8
17.5°	633.5	632.5	640.3	647.1	649.0
20°	615.1	619.9	628.7	636.4	638.4
22.5°	599.6	603.4	615.1	623.8	627.7
25°	584.0	587.9	602.5	611.2	615.1
27.5°	564.6	570.4	584.0	596.6	601.5
30°	545.2	551.0	566.6	581.1	586.9
32.5°	525.8	532.6	549.1	564.6	571.4
35°	504.5	511.3	529.7	548.1	555.9
37.5°	482.2	490.9	510.3	530.7	539.4
40°	459.9	468.6	489.0	512.2	521.9
42.5°	441.4	445.3	468.6	493.8	503.5
45°	420.1	423.0	447.2	474.4	486.0
47.5°	389.0	399.7	425.9	456.0	467.6
50°	364.8	376.4	403.6	435.6	448.2
52.5°	344.4	352.2	382.2	414.3	428.8
55°	322.1	327.9	359.0	392.9	408.4
57.5°	294.9	305.6	336.6	371.6	387.1
60°	264.9	278.4	312.4	350.2	365.7
62.5°	245.4	253.2	290.1	327.9	345.4
65°	217.3	227.0	265.8	304.6	323.1
67.5°	194.0	203.7	243.5	282.3	300.7
70°	168.8	178.5	220.2	259.0	277.5
72.5°	139.7	153.3	196.9	235.7	255.1
75°	116.4	129.0	171.7	210.5	226.0
77.5°	90.2	106.7	146.5	178.5	190.1
80°	66.9	83.4	119.3	142.6	153.3
82.5°	45.6	62.1	89.3	106.7	112.5
85°	27.2	38.8	57.2	66.9	66.0
87.5°	12.6	16.5	23.3	23.3	22.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)