

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: P312745

Luminaire Tested: **22FCZ2-20HE-UNV-L83050-CA125-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: P312745  
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: 22FCZ2-20HE-UNV-L83050-CA125-W2A-U-3000K  
Description: 2'X2' TROFFER LED MODULE, RIBBED LENS, 0.125" ACRYLIC 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**

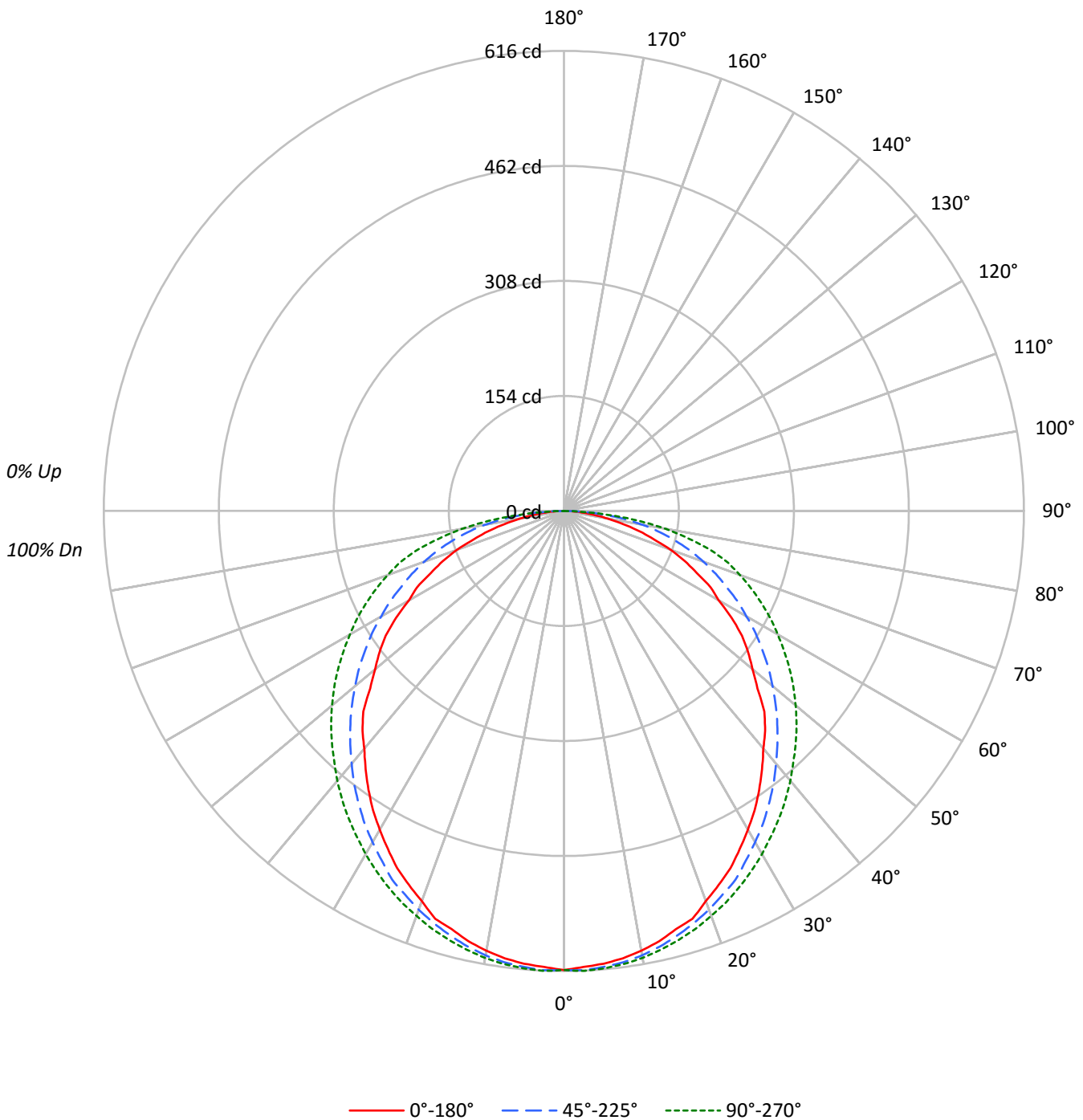
Lumens per Lamp: N/A  
Luminaire Lumens: 1832.0 lumens  
Efficiency: N/A  
Efficacy: 109.7 lumens/watt  
Spacing Criteria (0/90/45): 1.2 / 1.28 / 1.37  
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 16.7  
Input Voltage (V): NR  
Input Current (A<sub>in</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°	1654	1654	1654
5°	1644	1656	1660
10°	1634	1651	1660
15°	1615	1639	1656
20°	1592	1627	1652
25°	1567	1617	1651
30°	1531	1591	1648
35°	1498	1573	1650
40°	1460	1552	1657
45°	1445	1538	1672
50°	1380	1527	1696
55°	1366	1522	1732
60°	1288	1519	1779
65°	1251	1529	1859
70°	1201	1566	1973
75°	1094	1614	2124
80°	938	1671	2146
85°	760	1596	1840



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	58.2	3.2
10°-20°	165.9	9.1
20°-30°	249.7	13.6
30°-40°	299.7	16.4
40°-50°	313.3	17.1
50°-60°	291.9	15.9
60°-70°	239.4	13.1
70°-80°	161.3	8.8
80°-90°	52.5	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°	473.8	25.9
0°-40°	773.5	42.2
0°-60°	1378.7	75.3
0°-90°	1832.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1832.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	615	615	615	615	615	
5°	608	610	613	614	615	58
15°	580	583	588	594	594	164
25°	528	531	544	552	556	243
35°	456	462	479	495	502	285
45°	380	382	404	429	439	290
55°	291	296	324	355	369	258
65°	196	205	240	275	292	195
75°	105	117	155	190	204	111
85°	25	35	52	60	60	29
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	614.7	614.7	614.7	614.7	614.7
2.5°	611.1	612.9	615.5	616.4	616.4
5°	608.5	610.3	612.9	613.8	614.7
7.5°	604.1	605.9	609.4	611.1	612.0
10°	598.0	599.7	604.1	606.8	607.6
12.5°	590.1	591.9	597.1	600.6	601.5
15°	579.6	583.1	588.3	593.6	594.5
17.5°	572.6	571.7	578.7	584.8	586.6
20°	555.9	560.3	568.2	575.2	576.9
22.5°	541.9	545.4	555.9	563.8	567.3
25°	527.8	531.4	544.5	552.4	555.9
27.5°	510.3	515.6	527.8	539.2	543.6
30°	492.8	498.0	512.1	525.2	530.5
32.5°	475.2	481.4	496.3	510.3	516.4
35°	455.9	462.1	478.7	495.4	502.4
37.5°	435.8	443.7	461.2	479.6	487.5
40°	415.6	423.5	441.9	463.0	471.7
42.5°	399.0	402.5	423.5	446.3	455.1
45°	379.7	382.3	404.2	428.8	439.3
47.5°	351.6	361.3	384.9	412.1	422.6
50°	329.7	340.2	364.8	393.7	405.1
52.5°	311.3	318.3	345.5	374.4	387.6
55°	291.1	296.4	324.4	355.1	369.1
57.5°	266.6	276.2	304.3	335.8	349.9
60°	239.4	251.6	282.3	316.5	330.6
62.5°	221.8	228.9	262.2	296.4	312.1
65°	196.4	205.2	240.2	275.3	292.0
67.5°	175.4	184.1	220.1	255.2	271.8
70°	152.6	161.3	199.0	234.1	250.8
72.5°	126.3	138.5	178.0	213.1	230.6
75°	105.2	116.6	155.2	190.3	204.3
77.5°	81.5	96.5	132.4	161.3	171.9
80°	60.5	75.4	107.8	128.9	138.5
82.5°	41.2	56.1	80.7	96.5	101.7
85°	24.6	35.1	51.7	60.5	59.6
87.5°	11.4	14.9	21.0	21.0	20.2
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)