

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: P308978

Luminaire Tested: **22FCZ2-29HE-UNV-L82765-S-CP125-W2A-U-2700K**

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: P308978  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1805-783-23)  
Test Lab: INNOVATION CENTER(G3)  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: FAIL-SAFE  
Catalog Number: 22FCZ2-29HE-UNV-L82765-S-CP125-W2A-U-2700K  
Description: 2'X2' TROFFER LED MODULE, SMOOTH 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**

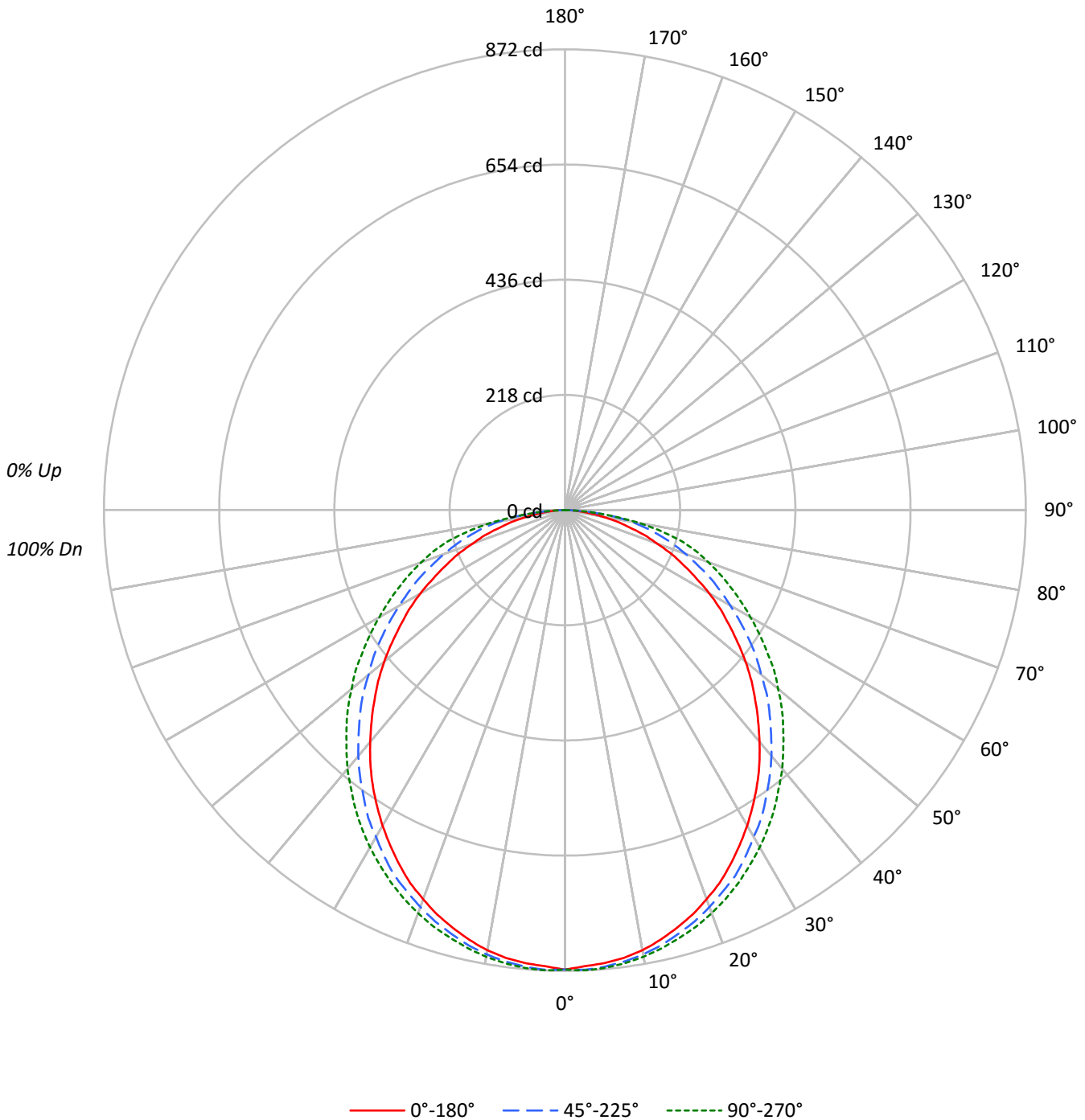
Lumens per Lamp: N/A  
Luminaire Lumens: 2427.0 lumens  
Efficiency: N/A  
Efficacy: 108.3 lumens/watt  
Spacing Criteria (0/90/45): 1.18 / 1.26 / 1.34  
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 22.4  
Input Voltage (V): NR  
Input Current (A<sub>in</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	99	95	106	101	97	94	97	94	91	93	90	88	89	87	85	83
2	98	90	83	77	96	88	82	76	84	79	74	81	77	73	78	74	71	69
3	90	79	71	64	87	77	70	63	74	68	62	72	66	61	69	64	60	58
4	82	70	61	54	80	69	60	54	66	59	53	64	57	52	61	56	52	49
5	75	62	53	47	73	61	53	46	59	52	46	57	51	45	55	50	45	43
6	70	56	47	41	68	55	47	41	53	46	40	52	45	40	50	44	39	37
7	65	51	42	36	63	50	42	36	49	41	36	47	40	35	46	40	35	33
8	60	47	38	32	59	46	38	32	45	37	32	43	37	32	42	36	31	30
9	56	43	35	29	55	42	34	29	41	34	29	40	33	29	39	33	28	27
10	53	40	32	26	51	39	31	26	38	31	26	37	31	26	36	30	26	24

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

	0°	45°	90°
0°	2340	2340	2340
5°	2325	2343	2349
10°	2311	2333	2345
15°	2281	2312	2335
20°	2244	2290	2325
25°	2199	2266	2310
30°	2143	2220	2291
35°	2083	2180	2269
40°	2013	2136	2248
45°	1939	2086	2224
50°	1868	2029	2205
55°	1780	1992	2189
60°	1700	1944	2182
65°	1586	1933	2206
70°	1461	1916	2272
75°	1318	1942	2390
80°	1141	2001	2245
85°	945	1680	1680



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	82.2	3.4
10°-20°	234.0	9.6
20°-30°	350.2	14.4
30°-40°	414.7	17.1
40°-50°	422.7	17.4
50°-60°	378.8	15.6
60°-70°	296.6	12.2
70°-80°	191.2	7.9
80°-90°	56.5	2.3
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°	666.5	27.5
0°-40°	1081.2	44.5
0°-60°	1882.7	77.6
0°-90°	2427.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2427.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	870	870	870	870	870	
5°	861	863	867	868	870	82
15°	819	823	830	837	838	231
25°	741	747	763	773	778	341
35°	634	642	664	684	691	396
45°	510	521	548	576	584	394
55°	379	392	425	454	466	340
65°	249	264	304	333	346	247
75°	127	146	187	218	230	136
85°	31	42	54	54	54	36
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	869.7	869.7	869.7	869.7	869.7
2.5°	864.0	866.3	870.8	871.9	871.9
5°	860.6	862.9	867.4	868.5	869.7
7.5°	854.9	856.1	861.7	864.0	865.1
10°	845.9	848.2	853.8	857.2	858.3
12.5°	833.4	836.8	843.6	848.2	849.3
15°	818.7	823.2	830.0	836.8	838.0
17.5°	802.9	807.4	816.4	824.4	826.6
20°	783.6	789.3	799.5	808.5	811.9
22.5°	764.4	768.9	781.3	792.7	796.1
25°	740.6	747.4	763.2	773.4	777.9
27.5°	715.7	723.6	739.4	753.0	757.6
30°	689.6	697.5	714.5	731.5	737.2
32.5°	662.4	671.5	691.9	708.9	714.5
35°	634.1	642.1	663.6	684.0	690.8
37.5°	604.7	611.5	636.4	657.9	664.7
40°	573.0	582.0	608.1	633.0	639.8
42.5°	541.3	551.5	577.5	604.7	611.5
45°	509.6	520.9	548.1	576.4	584.3
47.5°	479.0	488.1	518.6	545.8	557.1
50°	446.2	455.2	484.7	515.2	526.6
52.5°	412.2	424.6	456.4	485.8	499.4
55°	379.3	391.8	424.6	454.1	466.5
57.5°	348.8	359.0	392.9	423.5	436.0
60°	315.9	325.0	361.2	394.1	405.4
62.5°	280.8	294.4	331.8	362.4	376.0
65°	249.1	263.8	303.5	332.9	346.5
67.5°	219.7	233.3	271.8	303.5	318.2
70°	185.7	203.8	243.5	275.2	288.8
72.5°	158.5	174.4	215.2	246.9	261.6
75°	126.8	146.1	186.8	218.5	229.9
77.5°	100.8	120.0	158.5	183.4	189.1
80°	73.6	92.9	129.1	141.5	144.9
82.5°	49.8	67.9	92.9	96.3	97.4
85°	30.6	41.9	54.4	54.4	54.4
87.5°	14.7	17.0	19.3	18.1	18.1
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)