

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: P308695

Luminaire Tested: **22FCZ2-29HE-UNV-L82765-CA08-W2A-U-5000K**

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: P308695  
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: 22FCZ2-29HE-UNV-L82765-CA08-W2A-U-5000K  
Description: 2'X2' TROFFER LED MODULE, RIBBED LENS, 0.08" 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**

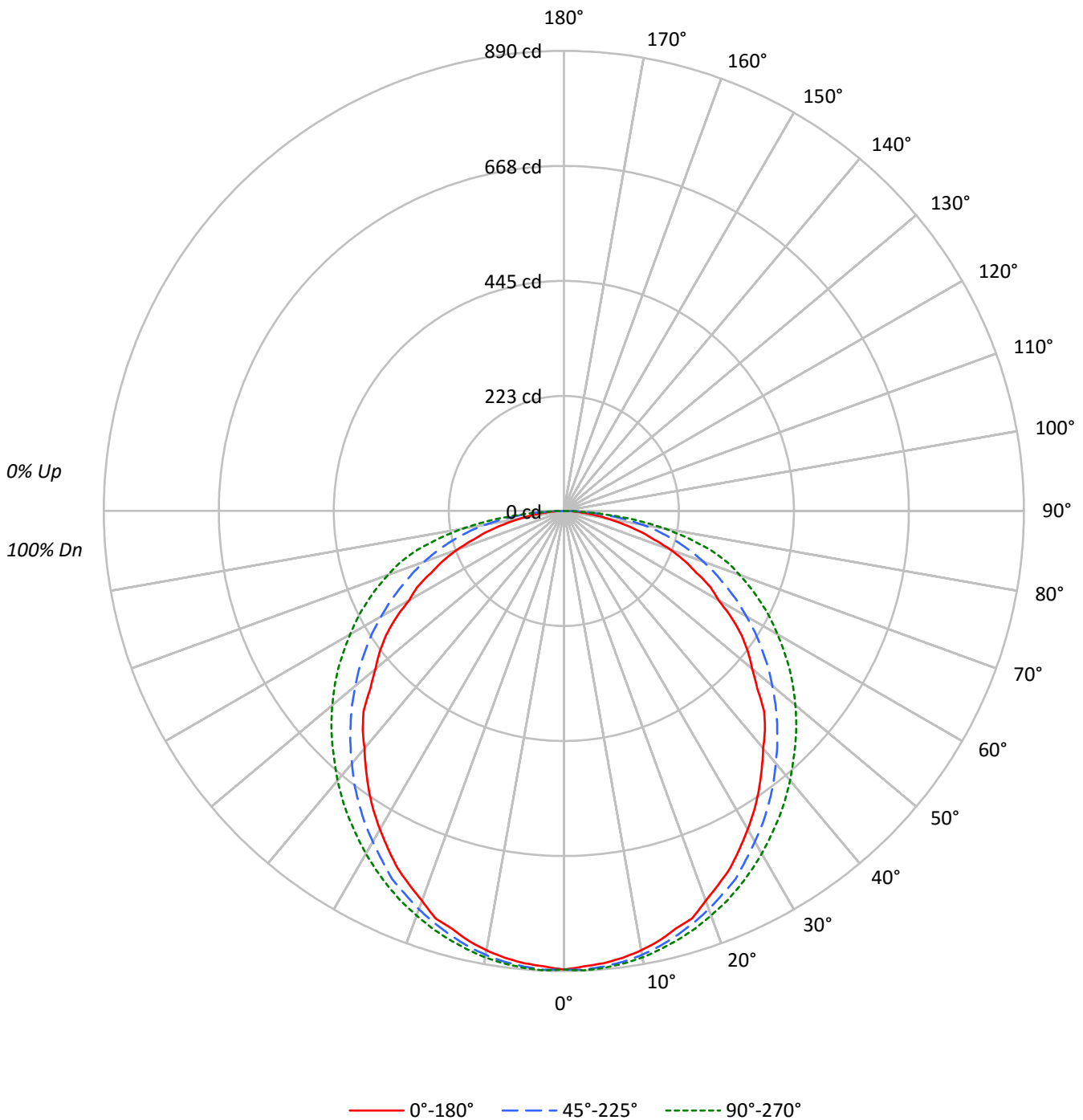
Lumens per Lamp: N/A  
Luminaire Lumens: 2644.0 lumens  
Efficiency: N/A  
Efficacy: 115.5 lumens/watt  
Spacing Criteria (0/90/45): 1.2 / 1.28 / 1.37  
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 22.9  
Input Voltage (V): NR  
Input Current (A<sub>in</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°	2387	2387	2387
5°	2372	2390	2396
10°	2358	2382	2396
15°	2330	2366	2390
20°	2298	2348	2385
25°	2262	2333	2382
30°	2210	2296	2379
35°	2162	2270	2382
40°	2107	2240	2392
45°	2085	2220	2413
50°	1992	2204	2447
55°	1971	2197	2500
60°	1859	2193	2568
65°	1805	2208	2683
70°	1733	2260	2847
75°	1579	2329	3066
80°	1353	2413	3098
85°	1093	2306	2658



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	83.9	3.2
10°-20°	239.5	9.1
20°-30°	360.4	13.6
30°-40°	432.5	16.4
40°-50°	452.1	17.1
50°-60°	421.3	15.9
60°-70°	345.6	13.1
70°-80°	232.8	8.8
80°-90°	75.8	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°	683.8	25.9
0°-40°	1116.3	42.2
0°-60°	1989.7	75.3
0°-90°	2644.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2644.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	887	887	887	887	887	
5°	878	881	885	886	887	83
15°	836	842	849	857	858	236
25°	762	767	786	797	802	350
35°	658	667	691	715	725	411
45°	548	552	583	619	634	419
55°	420	428	468	512	533	372
65°	284	296	347	397	421	282
75°	152	168	224	275	295	160
85°	35	51	75	87	86	42
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	887.1	887.1	887.1	887.1	887.1
2.5°	882.0	884.6	888.3	889.6	889.6
5°	878.2	880.8	884.6	885.8	887.1
7.5°	871.9	874.4	879.5	882.0	883.3
10°	863.0	865.6	871.9	875.7	877.0
12.5°	851.7	854.2	861.8	866.8	868.1
15°	836.5	841.5	849.1	856.7	858.0
17.5°	826.3	825.1	835.2	844.1	846.6
20°	802.3	808.6	820.0	830.1	832.7
22.5°	782.1	787.1	802.3	813.7	818.7
25°	761.8	766.9	785.8	797.2	802.3
27.5°	736.5	744.1	761.8	778.3	784.6
30°	711.2	718.8	739.0	758.0	765.6
32.5°	685.9	694.7	716.2	736.5	745.4
35°	658.0	666.9	690.9	715.0	725.1
37.5°	628.9	640.3	665.6	692.2	703.6
40°	599.8	611.2	637.8	668.2	680.8
42.5°	575.8	580.8	611.2	644.1	656.8
45°	547.9	551.7	583.4	618.8	634.0
47.5°	507.4	521.4	555.5	594.8	609.9
50°	475.8	491.0	526.4	568.2	584.6
52.5°	449.2	459.4	498.6	540.3	559.3
55°	420.1	427.7	468.2	512.5	532.8
57.5°	384.7	398.6	439.1	484.7	504.9
60°	345.5	363.2	407.5	456.8	477.1
62.5°	320.2	330.3	378.4	427.7	450.5
65°	283.5	296.1	346.7	397.4	421.4
67.5°	253.1	265.7	317.6	368.2	392.3
70°	220.2	232.8	287.3	337.9	361.9
72.5°	182.2	199.9	256.9	307.5	332.8
75°	151.9	168.3	224.0	274.6	294.9
77.5°	117.7	139.2	191.1	232.8	248.0
80°	87.3	108.8	155.7	186.0	199.9
82.5°	59.5	81.0	116.4	139.2	146.8
85°	35.4	50.6	74.7	87.3	86.1
87.5°	16.5	21.5	30.4	30.4	29.1
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)