

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: P308197

Luminaire Tested: **22FCZ2-34HE-UNV-L82765-HRP-CA08-W2A-U-3500K**

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: P308197  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1808-918-22)  
Test Lab: INNOVATION CENTER(G3)  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: FAIL-SAFE  
Catalog Number: 22FCZ2-34HE-UNV-L82765-HRP-CA08-W2A-U-3500K  
Description: 2'X2' TROFFER LED MODULE, HIGH EFFICIENCY RND PERF. 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**

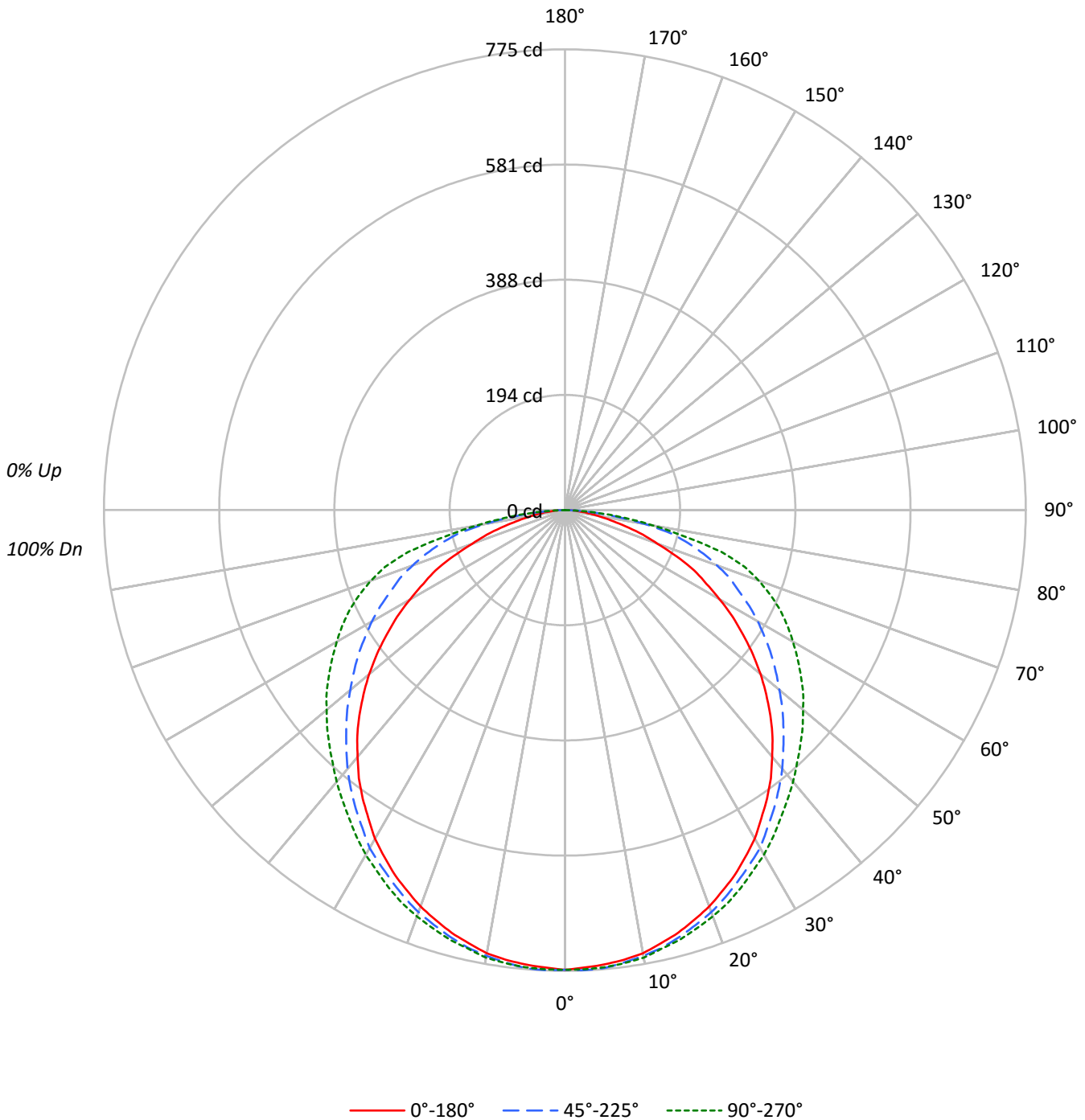
Lumens per Lamp: N/A  
Luminaire Lumens: 2348.0 lumens  
Efficiency: N/A  
Efficacy: 84.8 lumens/watt  
Spacing Criteria (0/90/45): 1.23 / 1.29 / 1.38  
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 27.7  
Input Voltage (V): NR  
Input Current (A<sub>in</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	101	96	93	96	93	90	92	90	87	89	87	84	82
2	98	89	82	76	95	87	80	75	84	78	73	80	75	71	77	73	70	68
3	89	78	69	62	86	76	68	62	73	66	61	70	64	60	68	63	59	56
4	81	69	59	52	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	50	43	38	49	43	38	36
7	64	50	41	34	62	49	40	34	47	40	34	46	39	34	44	38	33	31
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	27	40	32	27	39	32	27	38	31	27	25
10	52	38	30	25	50	38	30	25	37	30	25	36	29	25	35	29	24	23

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

	0°	45°	90°
0°	2081	2081	2081
5°	2072	2089	2085
10°	2068	2080	2088
15°	2051	2071	2084
20°	2032	2061	2083
25°	2010	2045	2080
30°	1984	2039	2080
35°	1946	2014	2078
40°	1904	1998	2097
45°	1860	1979	2131
50°	1798	1972	2189
55°	1716	1987	2272
60°	1618	2017	2384
65°	1528	2056	2546
70°	1305	2144	2727
75°	1094	2233	2833
80°	896	2157	2365
85°	778	1599	1738



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	73.3	3.1
10°-20°	209.6	8.9
20°-30°	317.7	13.5
30°-40°	383.6	16.3
40°-50°	403.1	17.2
50°-60°	379.2	16.2
60°-70°	316.2	13.5
70°-80°	209.5	8.9
80°-90°	55.8	2.4
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°	600.6	25.6
0°-40°	984.1	41.9
0°-60°	1766.4	75.2
0°-90°	2348.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2348.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	773	773	773	773	773	
5°	767	769	773	773	772	73
15°	736	739	744	746	748	208
25°	677	681	689	698	701	312
35°	592	598	613	626	632	370
45°	489	496	520	547	560	376
55°	366	382	424	467	484	327
65°	240	261	323	376	400	233
75°	105	147	215	259	272	114
85°	25	38	52	56	56	29
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	773.2	773.2	773.2	773.2	773.2
2.5°	770.2	771.7	774.7	774.7	773.2
5°	767.2	768.7	773.2	773.2	771.7
7.5°	762.8	764.3	767.2	770.2	768.7
10°	756.9	758.4	761.3	764.3	764.3
12.5°	746.5	748.0	753.9	755.4	755.4
15°	736.1	739.1	743.5	746.5	748.0
17.5°	722.8	725.8	731.7	737.6	737.6
20°	709.5	712.4	719.8	725.8	727.3
22.5°	693.2	697.6	705.0	712.4	715.4
25°	676.9	681.3	688.7	697.6	700.6
27.5°	657.6	662.1	672.5	682.8	684.3
30°	638.4	642.8	656.2	665.0	669.5
32.5°	614.7	620.6	633.9	647.3	651.7
35°	592.5	598.4	613.2	626.5	632.5
37.5°	568.8	574.7	591.0	607.3	614.7
40°	542.1	549.5	568.8	586.5	596.9
42.5°	516.9	524.3	543.6	567.3	577.7
45°	488.8	496.2	519.9	546.6	559.9
47.5°	459.2	468.0	496.2	528.8	542.1
50°	429.5	439.9	471.0	508.0	522.9
52.5°	398.4	411.8	447.3	487.3	505.1
55°	365.8	382.1	423.6	466.6	484.3
57.5°	334.7	349.6	398.4	444.4	463.6
60°	300.7	319.9	374.7	422.1	442.9
62.5°	268.1	288.8	349.6	399.9	422.1
65°	239.9	260.7	322.9	376.2	399.9
67.5°	202.9	231.1	300.7	351.0	374.7
70°	165.9	204.4	272.5	324.4	346.6
72.5°	137.7	174.8	244.4	296.2	317.0
75°	105.2	146.6	214.8	259.2	272.5
77.5°	78.5	121.5	183.7	205.9	207.4
80°	57.8	93.3	139.2	146.6	152.6
82.5°	40.0	65.2	90.4	99.2	102.2
85°	25.2	38.5	51.8	56.3	56.3
87.5°	13.3	14.8	17.8	17.8	17.8
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)