

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: P312530

Luminaire Tested: **22FCZ2-34HE-UNV-L83050-HRP-CP187-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: P312530  
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-L83050-HRP-CP187-W2A-U-3000K  
Description: 2'X2' TROFFER LED MODULE, HIGH EFFICIENCY RND PERF. LENS, 0.187"  
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**

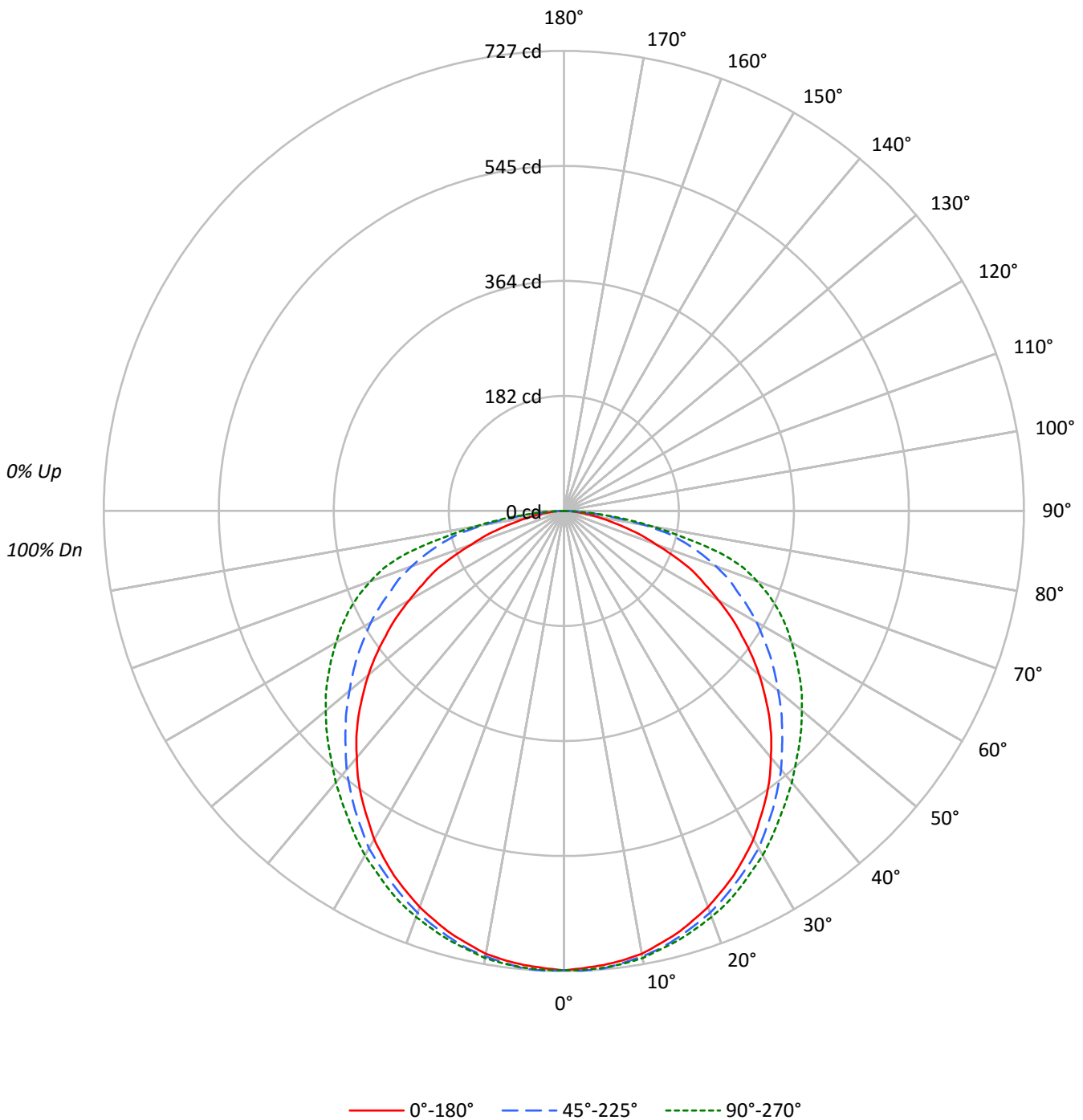
Lumens per Lamp: N/A  
Luminaire Lumens: 2204.0 lumens  
Efficiency: N/A  
Efficacy: 80.1 lumens/watt  
Spacing Criteria (0/90/45): 1.23 / 1.29 / 1.38  
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 27.5  
Input Voltage (V): NR  
Input Current (Ain): NR  
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°	1953	1953	1953
5°	1945	1961	1957
10°	1941	1953	1960
15°	1925	1944	1956
20°	1907	1935	1955
25°	1887	1920	1953
30°	1862	1914	1953
35°	1827	1891	1950
40°	1788	1875	1968
45°	1746	1857	2000
50°	1688	1851	2055
55°	1611	1865	2133
60°	1519	1893	2237
65°	1434	1930	2390
70°	1225	2013	2559
75°	1026	2096	2660
80°	840	2025	2219
85°	729	1504	1630



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	68.8	3.1
10°-20°	196.8	8.9
20°-30°	298.2	13.5
30°-40°	360.1	16.3
40°-50°	378.3	17.2
50°-60°	356.0	16.2
60°-70°	296.8	13.5
70°-80°	196.7	8.9
80°-90°	52.4	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°	563.7	25.6
0°-40°	923.8	41.9
0°-60°	1658.1	75.2
0°-90°	2204.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2204.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	726	726	726	726	726	
5°	720	722	726	726	724	68
15°	691	694	698	701	702	195
25°	635	640	646	655	658	293
35°	556	562	576	588	594	348
45°	459	466	488	513	526	353
55°	343	359	398	438	455	307
65°	225	245	303	353	375	219
75°	99	138	202	243	256	107
85°	24	36	49	53	53	27
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	725.8	725.8	725.8	725.8	725.8
2.5°	723.0	724.4	727.1	727.1	725.8
5°	720.2	721.6	725.8	725.8	724.4
7.5°	716.0	717.4	720.2	723.0	721.6
10°	710.5	711.8	714.6	717.4	717.4
12.5°	700.7	702.1	707.7	709.1	709.1
15°	691.0	693.8	697.9	700.7	702.1
17.5°	678.5	681.3	686.8	692.4	692.4
20°	666.0	668.7	675.7	681.3	682.7
22.5°	650.7	654.8	661.8	668.7	671.5
25°	635.4	639.6	646.5	654.8	657.6
27.5°	617.3	621.5	631.2	640.9	642.3
30°	599.2	603.4	615.9	624.3	628.4
32.5°	577.0	582.5	595.1	607.6	611.7
35°	556.1	561.7	575.6	588.1	593.7
37.5°	533.9	539.4	554.7	570.0	577.0
40°	508.9	515.8	533.9	550.6	560.3
42.5°	485.2	492.2	510.3	532.5	542.2
45°	458.8	465.8	488.0	513.0	525.5
47.5°	431.0	439.3	465.8	496.3	508.9
50°	403.2	412.9	442.1	476.9	490.8
52.5°	374.0	386.5	419.9	457.4	474.1
55°	343.4	358.7	397.6	438.0	454.6
57.5°	314.2	328.1	374.0	417.1	435.2
60°	282.2	300.3	351.8	396.2	415.7
62.5°	251.6	271.1	328.1	375.4	396.2
65°	225.2	244.7	303.1	353.1	375.4
67.5°	190.5	216.9	282.2	329.5	351.8
70°	155.7	191.9	255.8	304.5	325.3
72.5°	129.3	164.1	229.4	278.1	297.5
75°	98.7	137.6	201.6	243.3	255.8
77.5°	73.7	114.0	172.4	193.3	194.6
80°	54.2	87.6	130.7	137.6	143.2
82.5°	37.5	61.2	84.8	93.2	95.9
85°	23.6	36.1	48.7	52.8	52.8
87.5°	12.5	13.9	16.7	16.7	16.7
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)