

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: P308230

Luminaire Tested: **22FCZ2-34HE-UNV-L82765-HRP-CP187-W2A-U-6500K**

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: P308230  
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-CP187-W2A-U-6500K  
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**

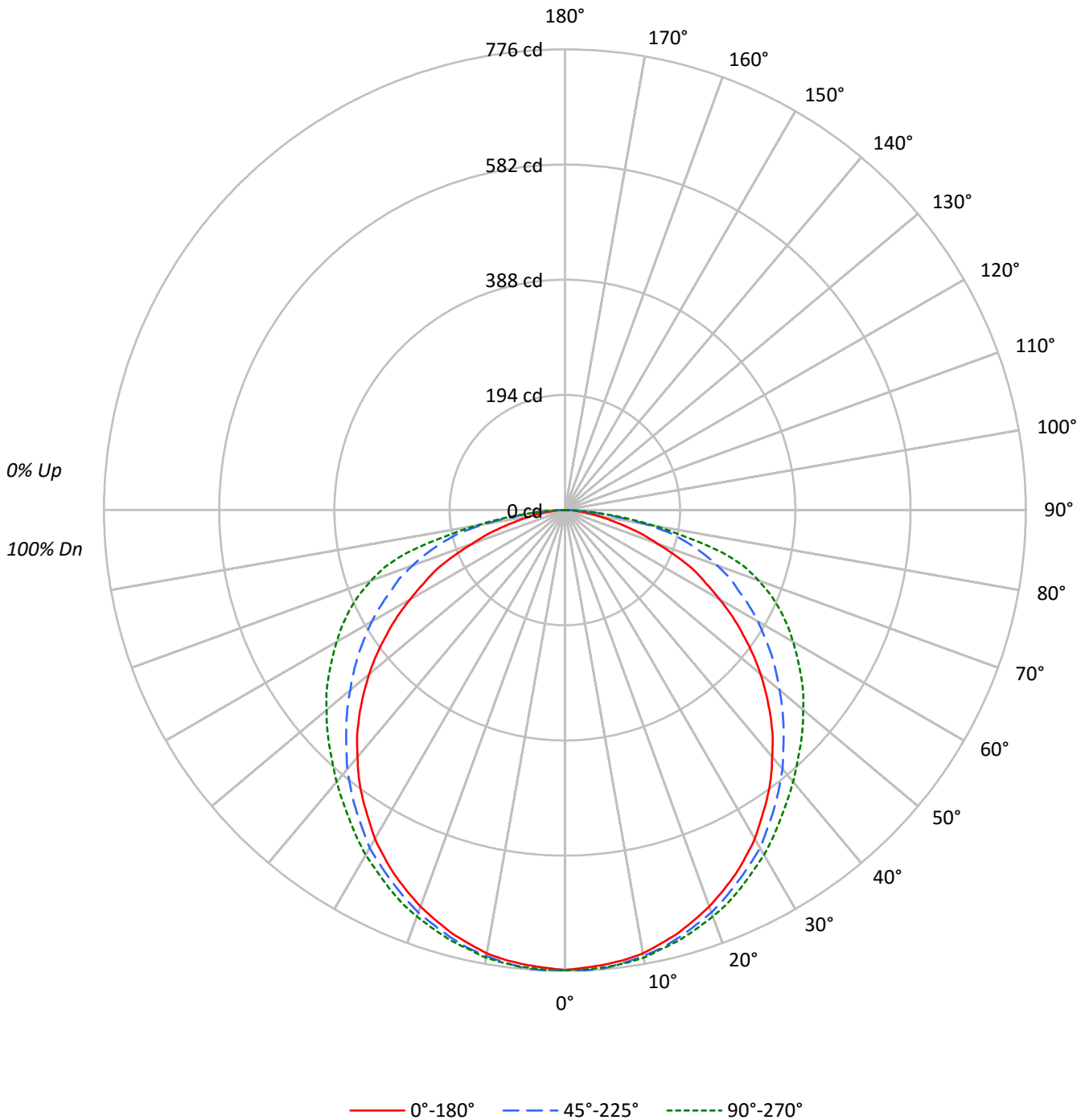
Lumens per Lamp: N/A  
Luminaire Lumens: 2352.0 lumens  
Efficiency: N/A  
Efficacy: 81.7 lumens/watt  
Spacing Criteria (0/90/45): 1.23 / 1.29 / 1.38  
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 28.8  
Input Voltage (V): NR  
Input Current (A<sub>in</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°	2084	2084	2084
5°	2076	2092	2088
10°	2072	2084	2092
15°	2054	2075	2087
20°	2035	2065	2086
25°	2013	2048	2084
30°	1987	2042	2084
35°	1950	2018	2081
40°	1907	2001	2100
45°	1863	1982	2134
50°	1801	1975	2192
55°	1719	1991	2276
60°	1621	2020	2387
65°	1531	2059	2551
70°	1308	2148	2732
75°	1095	2236	2838
80°	897	2162	2368
85°	778	1602	1741



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	73.4	3.1
10°-20°	210.0	8.9
20°-30°	318.2	13.5
30°-40°	384.2	16.3
40°-50°	403.7	17.2
50°-60°	379.9	16.2
60°-70°	316.7	13.5
70°-80°	209.9	8.9
80°-90°	55.9	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°	601.6	25.6
0°-40°	985.8	41.9
0°-60°	1769.4	75.2
0°-90°	2352.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2352.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	774	774	774	774	774	
5°	769	770	774	774	773	73
15°	737	740	745	748	749	208
25°	678	682	690	699	702	312
35°	594	599	614	628	634	371
45°	490	497	521	548	561	377
55°	366	383	424	467	485	328
65°	240	261	323	377	401	234
75°	105	147	215	260	273	114
85°	25	39	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°	774.5	774.5	774.5	774.5	774.5
2.5°	771.5	773.0	776.0	776.0	774.5
5°	768.6	770.0	774.5	774.5	773.0
7.5°	764.1	765.6	768.6	771.5	770.0
10°	758.2	759.7	762.6	765.6	765.6
12.5°	747.8	749.3	755.2	756.7	756.7
15°	737.4	740.4	744.8	747.8	749.3
17.5°	724.0	727.0	732.9	738.9	738.9
20°	710.7	713.7	721.1	727.0	728.5
22.5°	694.4	698.8	706.2	713.7	716.6
25°	678.0	682.5	689.9	698.8	701.8
27.5°	658.8	663.2	673.6	684.0	685.5
30°	639.5	643.9	657.3	666.2	670.6
32.5°	615.7	621.7	635.0	648.4	652.8
35°	593.5	599.4	614.2	627.6	633.5
37.5°	569.7	575.7	592.0	608.3	615.7
40°	543.0	550.4	569.7	587.5	597.9
42.5°	517.8	525.2	544.5	568.3	578.6
45°	489.6	497.0	520.8	547.5	560.8
47.5°	459.9	468.8	497.0	529.7	543.0
50°	430.3	440.7	471.8	508.9	523.7
52.5°	399.1	412.5	448.1	488.1	505.9
55°	366.5	382.8	424.3	467.4	485.2
57.5°	335.3	350.2	399.1	445.1	464.4
60°	301.2	320.5	375.4	422.9	443.6
62.5°	268.5	289.3	350.2	400.6	422.9
65°	240.4	261.1	323.4	376.9	400.6
67.5°	203.3	231.5	301.2	351.6	375.4
70°	166.2	204.7	273.0	324.9	347.2
72.5°	138.0	175.1	244.8	296.7	317.5
75°	105.3	146.9	215.1	259.6	273.0
77.5°	78.6	121.7	184.0	206.2	207.7
80°	57.9	93.5	139.5	146.9	152.8
82.5°	40.1	65.3	90.5	99.4	102.4
85°	25.2	38.6	51.9	56.4	56.4
87.5°	13.4	14.8	17.8	17.8	17.8
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)