

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: P308226

Luminaire Tested: **22FCZ2-34HE-UNV-L82765-HRP-CP187-W2A-U-4500K**

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: P308226  
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-4500K  
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**

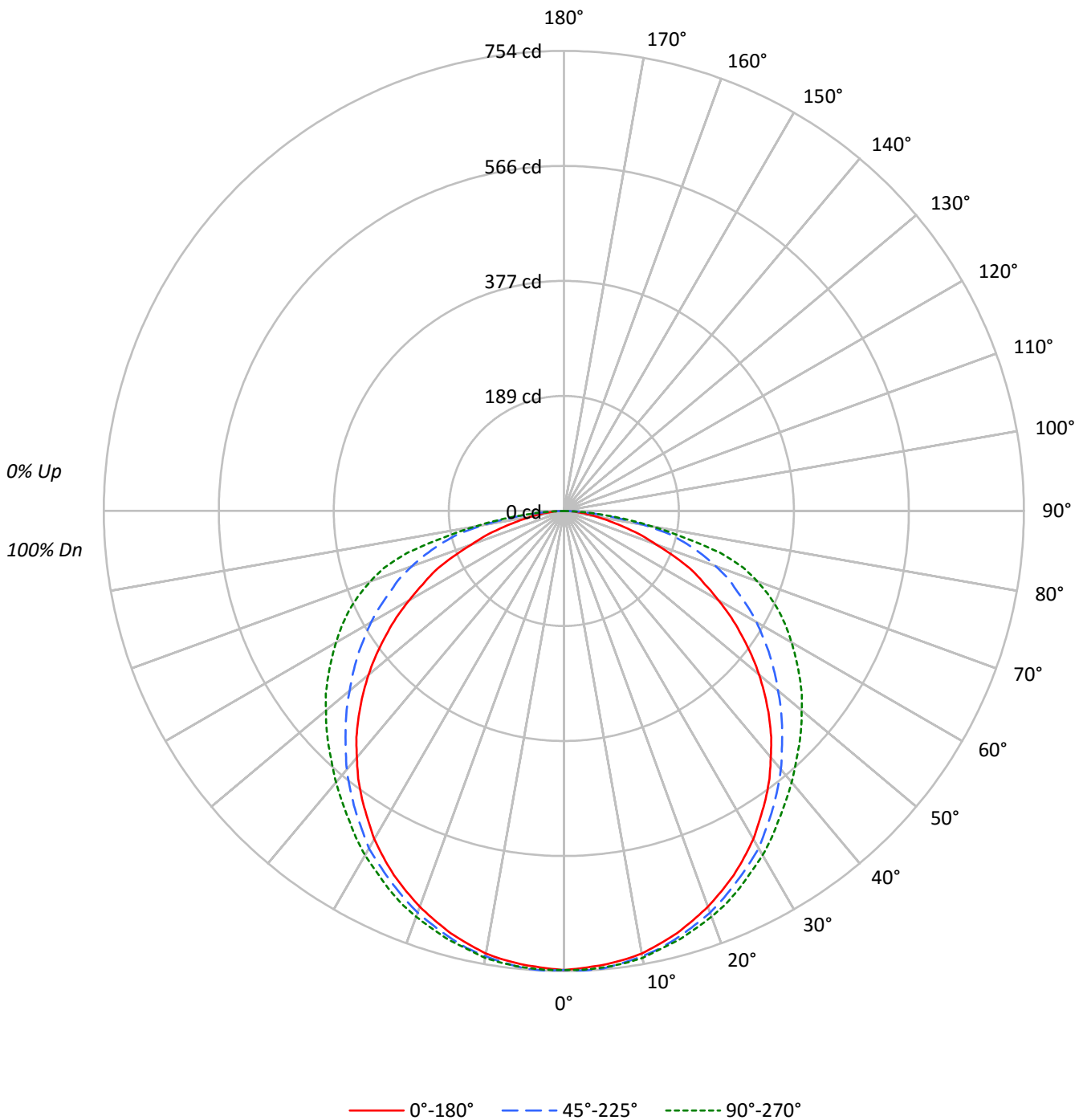
Lumens per Lamp: N/A  
Luminaire Lumens: 2285.0 lumens  
Efficiency: N/A  
Efficacy: 81.3 lumens/watt  
Spacing Criteria (0/90/45): 1.23 / 1.29 / 1.38  
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 28.1  
Input Voltage (V): NR  
Input Current (Ain): NR  
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°	2025	2025	2025
5°	2017	2032	2029
10°	2013	2025	2032
15°	1996	2016	2028
20°	1977	2006	2027
25°	1956	1990	2024
30°	1931	1984	2024
35°	1894	1961	2022
40°	1853	1944	2041
45°	1810	1925	2074
50°	1750	1919	2130
55°	1670	1934	2211
60°	1575	1963	2320
65°	1487	2001	2478
70°	1270	2087	2654
75°	1064	2173	2757
80°	871	2100	2301
85°	756	1556	1692



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	71.3	3.1
10°-20°	204.0	8.9
20°-30°	309.1	13.5
30°-40°	373.3	16.3
40°-50°	392.3	17.2
50°-60°	369.0	16.2
60°-70°	307.7	13.5
70°-80°	203.9	8.9
80°-90°	54.3	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°	584.4	25.6
0°-40°	957.7	41.9
0°-60°	1719.0	75.2
0°-90°	2285.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2285.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	752	752	752	752	752	
5°	747	748	752	752	751	71
15°	716	719	724	726	728	202
25°	659	663	670	679	682	303
35°	577	582	597	610	616	361
45°	476	483	506	532	545	366
55°	356	372	412	454	471	318
65°	234	254	314	366	389	227
75°	102	143	209	252	265	111
85°	24	38	50	55	55	28
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	752.4	752.4	752.4	752.4	752.4
2.5°	749.5	751.0	753.9	753.9	752.4
5°	746.7	748.1	752.4	752.4	751.0
7.5°	742.3	743.8	746.7	749.5	748.1
10°	736.6	738.0	740.9	743.8	743.8
12.5°	726.5	727.9	733.7	735.1	735.1
15°	716.4	719.3	723.6	726.5	727.9
17.5°	703.4	706.3	712.1	717.8	717.8
20°	690.4	693.3	700.5	706.3	707.7
22.5°	674.6	678.9	686.1	693.3	696.2
25°	658.7	663.1	670.3	678.9	681.8
27.5°	640.0	644.3	654.4	664.5	665.9
30°	621.3	625.6	638.6	647.2	651.5
32.5°	598.2	604.0	616.9	629.9	634.2
35°	576.6	582.3	596.8	609.7	615.5
37.5°	553.5	559.3	575.1	591.0	598.2
40°	527.6	534.8	553.5	570.8	580.9
42.5°	503.1	510.3	529.0	552.1	562.2
45°	475.7	482.9	505.9	531.9	544.9
47.5°	446.8	455.5	482.9	514.6	527.6
50°	418.0	428.1	458.4	494.4	508.8
52.5°	387.7	400.7	435.3	474.2	491.5
55°	356.0	371.9	412.2	454.0	471.3
57.5°	325.8	340.2	387.7	432.4	451.2
60°	292.6	311.3	364.7	410.8	431.0
62.5°	260.9	281.1	340.2	389.2	410.8
65°	233.5	253.7	314.2	366.1	389.2
67.5°	197.5	224.9	292.6	341.6	364.7
70°	161.4	198.9	265.2	315.7	337.3
72.5°	134.1	170.1	237.8	288.3	308.5
75°	102.3	142.7	209.0	252.2	265.2
77.5°	76.4	118.2	178.7	200.4	201.8
80°	56.2	90.8	135.5	142.7	148.5
82.5°	38.9	63.4	87.9	96.6	99.5
85°	24.5	37.5	50.4	54.8	54.8
87.5°	13.0	14.4	17.3	17.3	17.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)