

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: P312528

Luminaire Tested: **22FCZ2-34HE-UNV-L83050-HRP-CP125-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: P312528  
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-CP125-W2A-U-4500K  
Description: 2'X2' TROFFER LED MODULE, HIGH EFFICIENCY RND PERF. LENS, 0.125" POLYCARB SHEET  
Light Source: (168) 4500K 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**

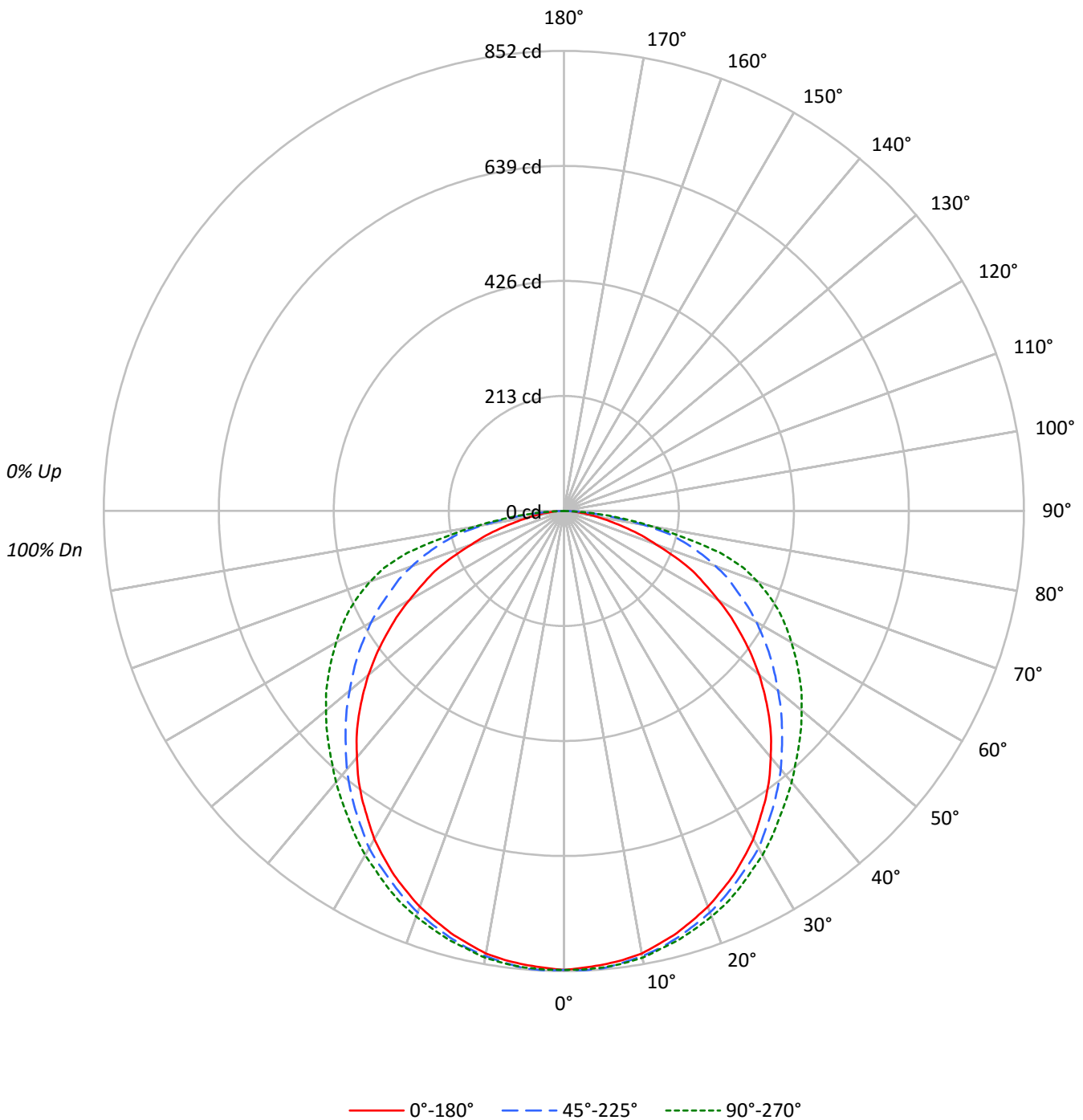
Lumens per Lamp: N/A  
Luminaire Lumens: 2581.0 lumens  
Efficiency: N/A  
Efficacy: 89.0 lumens/watt  
Spacing Criteria (0/90/45): 1.23 / 1.29 / 1.38  
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 29  
Input Voltage (V): NR  
Input Current (A<sub>in</sub>): 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°	2287	2287	2287
5°	2278	2296	2291
10°	2273	2287	2296
15°	2254	2277	2291
20°	2233	2266	2289
25°	2209	2248	2287
30°	2180	2241	2287
35°	2140	2214	2284
40°	2093	2196	2305
45°	2045	2175	2342
50°	1977	2168	2406
55°	1887	2185	2498
60°	1779	2217	2620
65°	1680	2260	2799
70°	1435	2357	2998
75°	1202	2455	3115
80°	984	2371	2599
85°	855	1760	1911



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	80.6	3.1
10°-20°	230.4	8.9
20°-30°	349.2	13.5
30°-40°	421.6	16.3
40°-50°	443.1	17.2
50°-60°	416.9	16.2
60°-70°	347.6	13.5
70°-80°	230.3	8.9
80°-90°	61.4	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°	660.2	25.6
0°-40°	1081.8	41.9
0°-60°	1941.7	75.2
0°-90°	2581.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2581.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	850	850	850	850	850	
5°	843	845	850	850	848	80
15°	809	812	817	821	822	228
25°	744	749	757	767	770	343
35°	651	658	674	689	695	407
45°	537	545	572	601	615	414
55°	402	420	466	513	532	360
65°	264	287	355	414	440	257
75°	116	161	236	285	300	125
85°	28	42	57	62	62	32
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	849.9	849.9	849.9	849.9	849.9
2.5°	846.6	848.3	851.5	851.5	849.9
5°	843.4	845.0	849.9	849.9	848.3
7.5°	838.5	840.1	843.4	846.6	845.0
10°	832.0	833.6	836.9	840.1	840.1
12.5°	820.6	822.2	828.7	830.4	830.4
15°	809.2	812.4	817.3	820.6	822.2
17.5°	794.5	797.8	804.3	810.8	810.8
20°	779.9	783.1	791.3	797.8	799.4
22.5°	762.0	766.9	775.0	783.1	786.4
25°	744.1	748.9	757.1	766.9	770.1
27.5°	722.9	727.8	739.2	750.6	752.2
30°	701.7	706.6	721.3	731.0	735.9
32.5°	675.7	682.2	696.8	711.5	716.4
35°	651.3	657.8	674.1	688.7	695.2
37.5°	625.2	631.7	649.6	667.5	675.7
40°	595.9	604.0	625.2	644.7	656.1
42.5°	568.2	576.4	597.5	623.6	635.0
45°	537.3	545.4	571.5	600.8	615.4
47.5°	504.7	514.5	545.4	581.2	595.9
50°	472.2	483.6	517.8	558.5	574.7
52.5°	438.0	452.6	491.7	535.7	555.2
55°	402.2	420.1	465.7	512.9	532.4
57.5°	368.0	384.2	438.0	488.4	509.6
60°	330.5	351.7	411.9	464.0	486.8
62.5°	294.7	317.5	384.2	439.6	464.0
65°	263.8	286.6	354.9	413.6	439.6
67.5°	223.1	254.0	330.5	385.9	411.9
70°	182.4	224.7	299.6	356.6	381.0
72.5°	151.4	192.1	268.6	325.6	348.4
75°	115.6	161.2	236.1	284.9	299.6
77.5°	86.3	133.5	201.9	226.3	227.9
80°	63.5	102.6	153.0	161.2	167.7
82.5°	44.0	71.6	99.3	109.1	112.3
85°	27.7	42.3	57.0	61.9	61.9
87.5°	14.7	16.3	19.5	19.5	19.5
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)