

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: P312527

Luminaire Tested: **22FCZ2-34HE-UNV-L83050-HRP-CP125-W2A-U-4000K**

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: P312527  
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-4000K  
Description: 2'X2' TROFFER LED MODULE, HIGH EFFICIENCY RND PERF. LENS, 0.125" POLYCARB SHEET  
Light Source: (168) 4000K 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**

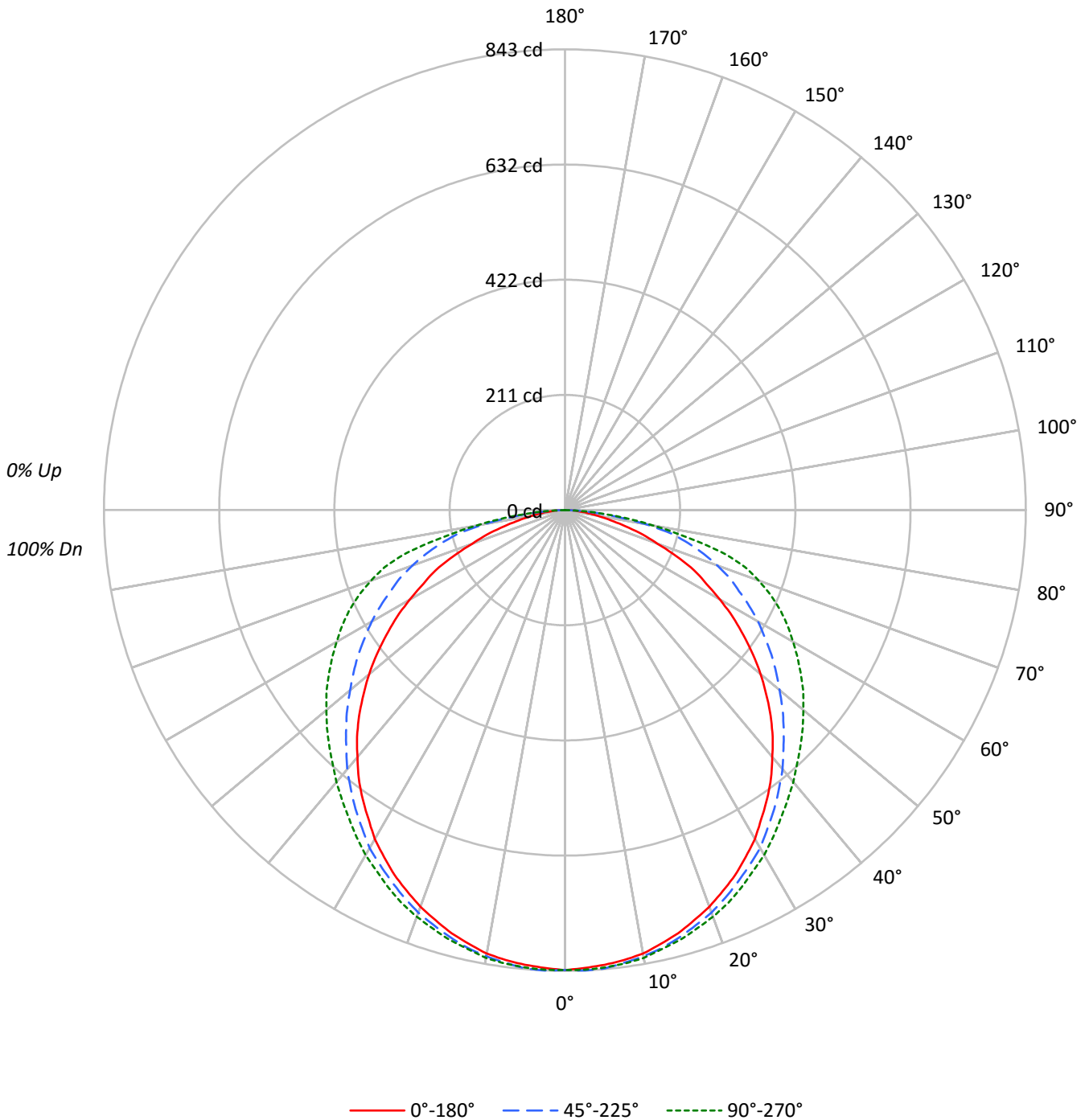
Lumens per Lamp: N/A  
Luminaire Lumens: 2556.0 lumens  
Efficiency: N/A  
Efficacy: 90.6 lumens/watt  
Spacing Criteria (0/90/45): 1.23 / 1.29 / 1.38  
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 28.2  
Input Voltage (V): NR  
Input Current (A<sub>in</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°	2265	2265	2265
5°	2256	2274	2269
10°	2251	2265	2273
15°	2233	2255	2269
20°	2212	2244	2267
25°	2188	2226	2265
30°	2159	2220	2265
35°	2119	2193	2262
40°	2073	2175	2283
45°	2025	2154	2320
50°	1958	2146	2383
55°	1869	2163	2473
60°	1762	2195	2595
65°	1663	2238	2772
70°	1421	2334	2969
75°	1190	2431	3085
80°	975	2349	2574
85°	846	1741	1893



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	79.8	3.1
10°-20°	228.2	8.9
20°-30°	345.8	13.5
30°-40°	417.6	16.3
40°-50°	438.8	17.2
50°-60°	412.8	16.2
60°-70°	344.2	13.5
70°-80°	228.1	8.9
80°-90°	60.8	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°	653.8	25.6
0°-40°	1071.3	41.9
0°-60°	1922.9	75.2
0°-90°	2556.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2556.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	842	842	842	842	842	
5°	835	837	842	842	840	79
15°	801	805	809	813	814	226
25°	737	742	750	759	763	339
35°	645	651	668	682	688	403
45°	532	540	566	595	610	410
55°	398	416	461	508	527	356
65°	261	284	352	410	435	254
75°	114	160	234	282	297	124
85°	27	42	56	61	61	32
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	841.7	841.7	841.7	841.7	841.7
2.5°	838.4	840.0	843.3	843.3	841.7
5°	835.2	836.8	841.7	841.7	840.0
7.5°	830.4	832.0	835.2	838.4	836.8
10°	823.9	825.5	828.8	832.0	832.0
12.5°	812.6	814.3	820.7	822.3	822.3
15°	801.4	804.6	809.4	812.6	814.3
17.5°	786.8	790.1	796.5	803.0	803.0
20°	772.3	775.6	783.6	790.1	791.7
22.5°	754.6	759.4	767.5	775.6	778.8
25°	736.9	741.7	749.8	759.4	762.7
27.5°	715.9	720.7	732.0	743.3	744.9
30°	694.9	699.8	714.3	724.0	728.8
32.5°	669.1	675.6	690.1	704.6	709.4
35°	645.0	651.4	667.5	682.0	688.5
37.5°	619.2	625.6	643.3	661.1	669.1
40°	590.1	598.2	619.2	638.5	649.8
42.5°	562.7	570.8	591.7	617.5	628.8
45°	532.1	540.1	565.9	595.0	609.5
47.5°	499.8	509.5	540.1	575.6	590.1
50°	467.6	478.9	512.7	553.0	569.2
52.5°	433.7	448.2	486.9	530.5	549.8
55°	398.3	416.0	461.1	507.9	527.2
57.5°	364.4	380.5	433.7	483.7	504.7
60°	327.3	348.3	407.9	459.5	482.1
62.5°	291.8	314.4	380.5	435.3	459.5
65°	261.2	283.8	351.5	409.5	435.3
67.5°	220.9	251.5	327.3	382.1	407.9
70°	180.6	222.5	296.7	353.1	377.3
72.5°	150.0	190.3	266.0	322.5	345.0
75°	114.5	159.6	233.8	282.2	296.7
77.5°	85.5	132.2	199.9	224.1	225.7
80°	62.9	101.6	151.6	159.6	166.1
82.5°	43.5	70.9	98.4	108.0	111.3
85°	27.4	41.9	56.4	61.3	61.3
87.5°	14.5	16.1	19.3	19.3	19.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)