

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: P312560

Luminaire Tested: **22FCZ2-39HE-UNV-L83050-HRP-CP250-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: P312560  
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: 22FCZ2-39HE-UNV-L83050-HRP-CP250-W2A-U-3000K  
Description: 2'X2' TROFFER LED MODULE, HIGH EFFICIENCY RND PERF. LENS, 0.250"  
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**

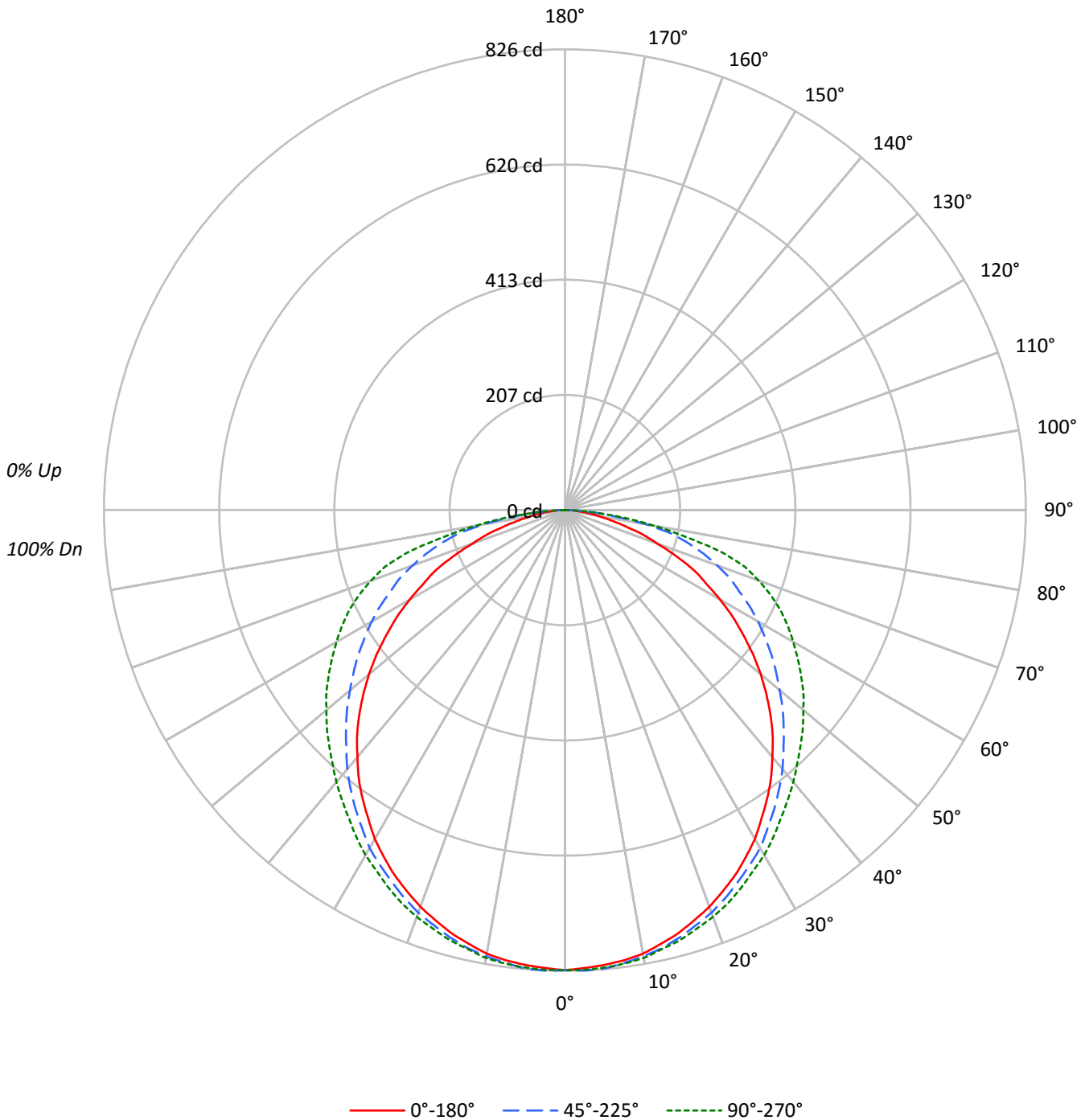
Lumens per Lamp: N/A  
Luminaire Lumens: 2505.0 lumens  
Efficiency: N/A  
Efficacy: 77.6 lumens/watt  
Spacing Criteria (0/90/45): 1.23 / 1.29 / 1.38  
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 32.3  
Input Voltage (V): NR  
Input Current (A<sub>in</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°	2220	2220	2220
5°	2211	2228	2224
10°	2206	2219	2228
15°	2188	2210	2223
20°	2168	2199	2222
25°	2144	2182	2219
30°	2116	2175	2220
35°	2076	2149	2216
40°	2032	2132	2237
45°	1985	2111	2273
50°	1919	2104	2335
55°	1831	2120	2424
60°	1727	2152	2543
65°	1630	2194	2717
70°	1393	2288	2910
75°	1167	2382	3023
80°	955	2301	2523
85°	831	1707	1853



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	78.2	3.1
10°-20°	223.6	8.9
20°-30°	338.9	13.5
30°-40°	409.2	16.3
40°-50°	430.0	17.2
50°-60°	404.6	16.2
60°-70°	337.4	13.5
70°-80°	223.5	8.9
80°-90°	59.6	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°	640.7	25.6
0°-40°	1049.9	41.9
0°-60°	1884.6	75.2
0°-90°	2505.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2505.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	825	825	825	825	825	
5°	818	820	825	825	823	78
15°	785	788	793	796	798	221
25°	722	727	735	744	747	333
35°	632	638	654	668	675	395
45°	522	529	555	583	597	402
55°	390	408	452	498	517	349
65°	256	278	344	401	427	249
75°	112	156	229	276	291	122
85°	27	41	55	60	60	31
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	824.9	824.9	824.9	824.9	824.9
2.5°	821.7	823.3	826.4	826.4	824.9
5°	818.5	820.1	824.9	824.9	823.3
7.5°	813.8	815.4	818.5	821.7	820.1
10°	807.5	809.1	812.2	815.4	815.4
12.5°	796.4	798.0	804.3	805.9	805.9
15°	785.4	788.5	793.3	796.4	798.0
17.5°	771.1	774.3	780.6	786.9	786.9
20°	756.9	760.1	768.0	774.3	775.9
22.5°	739.5	744.3	752.2	760.1	763.2
25°	722.2	726.9	734.8	744.3	747.4
27.5°	701.6	706.4	717.4	728.5	730.1
30°	681.1	685.8	700.0	709.5	714.3
32.5°	655.8	662.1	676.3	690.6	695.3
35°	632.1	638.4	654.2	668.4	674.7
37.5°	606.8	613.1	630.5	647.9	655.8
40°	578.4	586.3	606.8	625.8	636.8
42.5°	551.5	559.4	579.9	605.2	616.3
45°	521.5	529.4	554.7	583.1	597.3
47.5°	489.9	499.3	529.4	564.1	578.4
50°	458.3	469.3	502.5	542.0	557.8
52.5°	425.1	439.3	477.2	519.9	538.9
55°	390.3	407.7	451.9	497.8	516.7
57.5°	357.1	372.9	425.1	474.1	494.6
60°	320.8	341.3	399.8	450.4	472.5
62.5°	286.0	308.1	372.9	426.7	450.4
65°	256.0	278.1	344.5	401.4	426.7
67.5°	216.5	246.5	320.8	374.5	399.8
70°	177.0	218.1	290.8	346.1	369.8
72.5°	147.0	186.5	260.7	316.0	338.2
75°	112.2	156.4	229.1	276.5	290.8
77.5°	83.8	129.6	195.9	219.6	221.2
80°	61.6	99.6	148.5	156.4	162.8
82.5°	42.7	69.5	96.4	105.9	109.0
85°	26.9	41.1	55.3	60.0	60.0
87.5°	14.2	15.8	19.0	19.0	19.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)