

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: P308210

Luminaire Tested: **22FCZ2-34HE-UNV-L82765-HRP-CA125-W2A-U-5500K**

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: P308210
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-CA125-W2A-U-5500K
Description: 2'X2' TROFFER LED MODULE, HIGH EFFICIENCY RND PERF. LENS, 0.125" ACRYLIC 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: 2491.0 lumens
Efficiency: N/A
Efficacy: 87.7 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

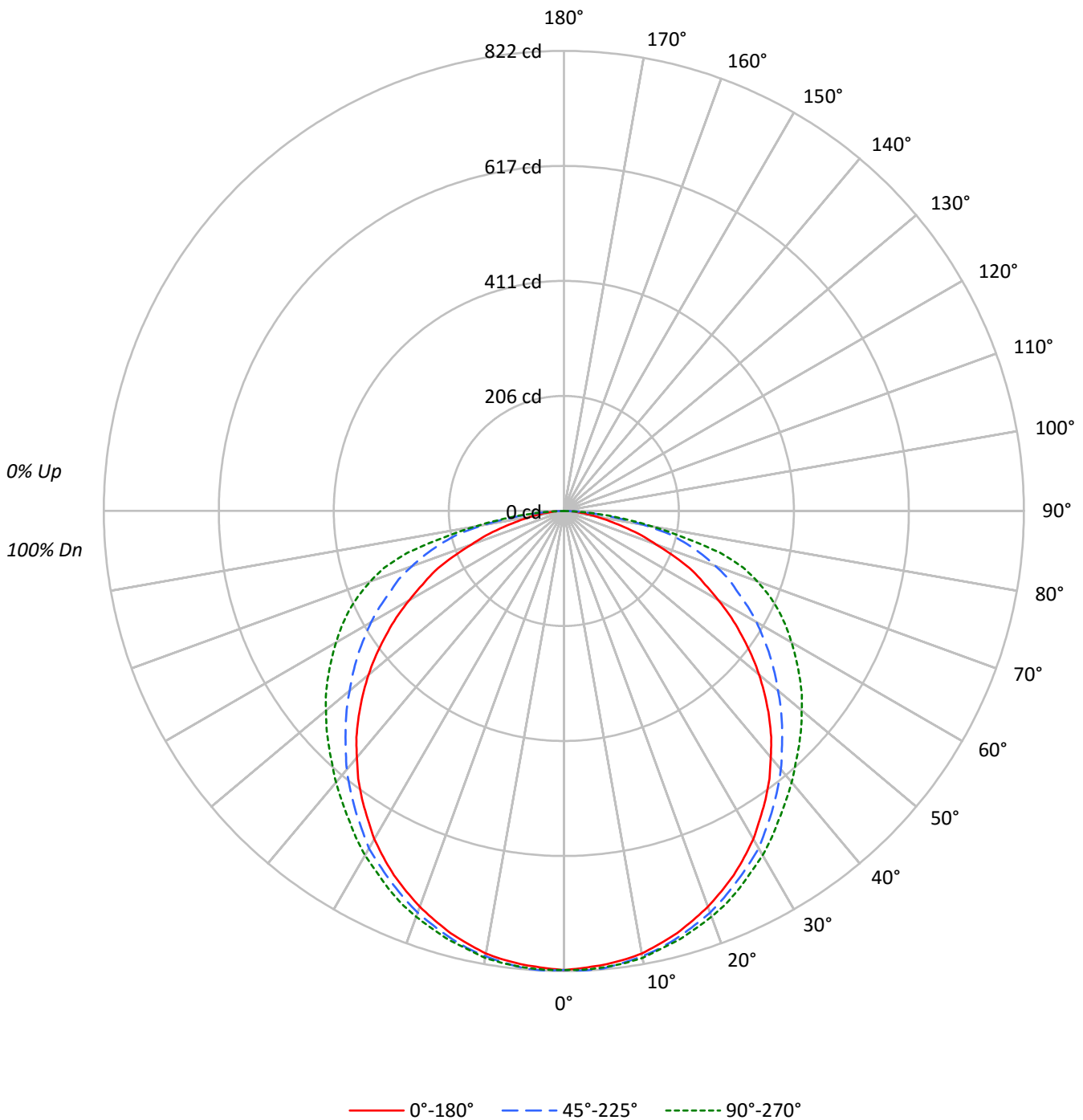
Input Watts (W): 28.4
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	2207	2207	2207
5°	2199	2216	2212
10°	2194	2207	2216
15°	2176	2198	2211
20°	2155	2187	2209
25°	2132	2170	2207
30°	2105	2163	2207
35°	2065	2137	2204
40°	2020	2120	2225
45°	1974	2099	2261
50°	1908	2092	2322
55°	1821	2108	2411
60°	1717	2140	2528
65°	1621	2181	2702
70°	1385	2275	2893
75°	1160	2368	3006
80°	950	2289	2509
85°	824	1698	1843



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	77.7	3.1
10°-20°	222.4	8.9
20°-30°	337.0	13.5
30°-40°	406.9	16.3
40°-50°	427.6	17.2
50°-60°	402.3	16.2
60°-70°	335.5	13.5
70°-80°	222.3	8.9
80°-90°	59.2	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°	637.1	25.6
0°-40°	1044.1	41.9
0°-60°	1874.0	75.2
0°-90°	2491.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2491.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	820	820	820	820	820	
5°	814	816	820	820	819	77
15°	781	784	789	792	794	220
25°	718	723	731	740	743	331
35°	629	635	650	665	671	393
45°	519	526	552	580	594	399
55°	388	405	449	495	514	347
65°	255	277	343	399	424	248
75°	112	156	228	275	289	121
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°	820.3	820.3	820.3	820.3	820.3
2.5°	817.1	818.7	821.8	821.8	820.3
5°	814.0	815.5	820.3	820.3	818.7
7.5°	809.3	810.8	814.0	817.1	815.5
10°	803.0	804.5	807.7	810.8	810.8
12.5°	792.0	793.5	799.8	801.4	801.4
15°	781.0	784.1	788.8	792.0	793.5
17.5°	766.8	770.0	776.3	782.5	782.5
20°	752.7	755.8	763.7	770.0	771.5
22.5°	735.4	740.1	748.0	755.8	759.0
25°	718.1	722.8	730.7	740.1	743.3
27.5°	697.7	702.4	713.4	724.4	726.0
30°	677.3	682.0	696.1	705.5	710.3
32.5°	652.1	658.4	672.5	686.7	691.4
35°	628.6	634.8	650.5	664.7	671.0
37.5°	603.4	609.7	627.0	644.3	652.1
40°	575.1	583.0	603.4	622.3	633.3
42.5°	548.4	556.3	576.7	601.8	612.8
45°	518.6	526.4	551.6	579.8	594.0
47.5°	487.1	496.6	526.4	561.0	575.1
50°	455.7	466.7	499.7	539.0	554.7
52.5°	422.7	436.8	474.6	517.0	535.8
55°	388.1	405.4	449.4	495.0	513.8
57.5°	355.1	370.8	422.7	471.4	491.8
60°	319.0	339.4	397.6	447.8	469.8
62.5°	284.4	306.4	370.8	424.3	447.8
65°	254.6	276.6	342.6	399.1	424.3
67.5°	215.3	245.1	319.0	372.4	397.6
70°	176.0	216.8	289.1	344.1	367.7
72.5°	146.1	185.4	259.3	314.3	336.3
75°	111.6	155.6	227.8	275.0	289.1
77.5°	83.3	128.9	194.9	218.4	220.0
80°	61.3	99.0	147.7	155.6	161.9
82.5°	42.4	69.1	95.9	105.3	108.4
85°	26.7	40.9	55.0	59.7	59.7
87.5°	14.1	15.7	18.9	18.9	18.9
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)