

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: P312522

Luminaire Tested: **22FCZ2-34HE-UNV-L83050-HRP-CA125-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: P312522
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-CA125-W2A-U-4000K
Description: 2'X2' TROFFER LED MODULE, HIGH EFFICIENCY RND PERF. LENS, 0.125" ACRYLIC 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: 2607.0 lumens
Efficiency: N/A
Efficacy: 92.4 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

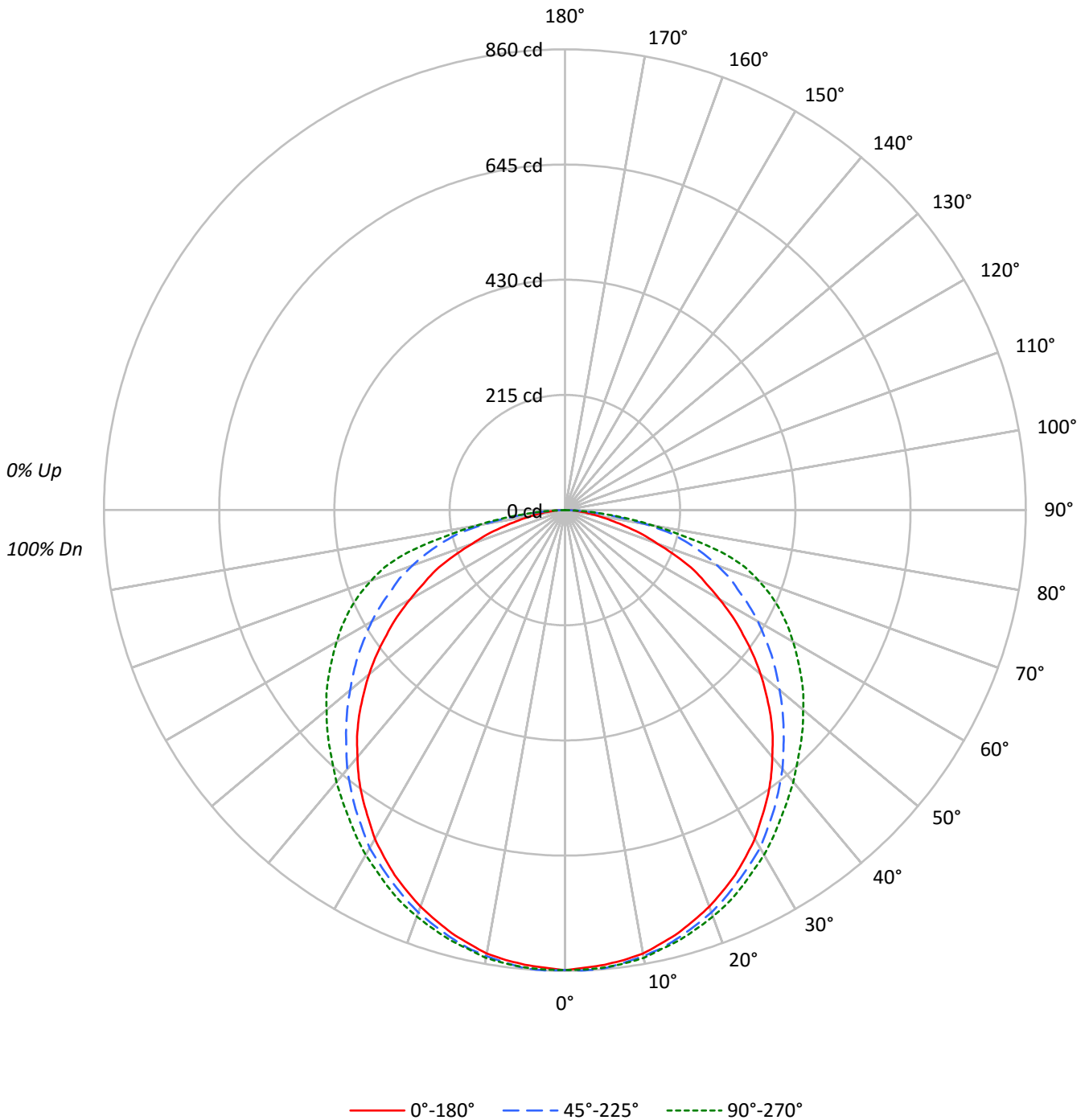
Input Watts (W): 28.2
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	2310	2310	2310
5°	2301	2319	2314
10°	2296	2310	2319
15°	2277	2300	2314
20°	2256	2289	2312
25°	2232	2271	2310
30°	2202	2264	2310
35°	2161	2236	2307
40°	2114	2218	2328
45°	2065	2197	2366
50°	1997	2189	2430
55°	1906	2206	2523
60°	1796	2239	2646
65°	1696	2283	2827
70°	1449	2381	3028
75°	1214	2480	3146
80°	993	2396	2625
85°	865	1778	1930



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	81.4	3.1
10°-20°	232.7	8.9
20°-30°	352.7	13.5
30°-40°	425.9	16.3
40°-50°	447.5	17.2
50°-60°	421.1	16.2
60°-70°	351.1	13.5
70°-80°	232.6	8.9
80°-90°	62.0	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°	666.8	25.6
0°-40°	1092.7	41.9
0°-60°	1961.3	75.2
0°-90°	2607.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2607.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	858	858	858	858	858	
5°	852	854	858	858	857	81
15°	817	821	826	829	830	230
25°	752	756	765	775	778	346
35°	658	664	681	696	702	411
45°	543	551	577	607	622	418
55°	406	424	470	518	538	363
65°	266	289	358	418	444	259
75°	117	163	238	288	303	127
85°	28	43	58	62	62	32
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	858.5	858.5	858.5	858.5	858.5
2.5°	855.2	856.8	860.1	860.1	858.5
5°	851.9	853.5	858.5	858.5	856.8
7.5°	846.9	848.6	851.9	855.2	853.5
10°	840.4	842.0	845.3	848.6	848.6
12.5°	828.9	830.5	837.1	838.7	838.7
15°	817.3	820.6	825.6	828.9	830.5
17.5°	802.5	805.8	812.4	819.0	819.0
20°	787.7	791.0	799.3	805.8	807.5
22.5°	769.7	774.6	782.8	791.0	794.3
25°	751.6	756.5	764.7	774.6	777.9
27.5°	730.2	735.1	746.6	758.1	759.8
30°	708.8	713.7	728.5	738.4	743.3
32.5°	682.5	689.1	703.9	718.7	723.6
35°	657.8	664.4	680.8	695.6	702.2
37.5°	631.5	638.1	656.2	674.3	682.5
40°	601.9	610.1	631.5	651.2	662.8
42.5°	573.9	582.2	603.6	629.9	641.4
45°	542.7	550.9	577.2	606.8	621.6
47.5°	509.8	519.7	550.9	587.1	601.9
50°	476.9	488.4	523.0	564.1	580.5
52.5°	442.4	457.2	496.7	541.1	560.8
55°	406.2	424.3	470.3	518.0	537.8
57.5°	371.7	388.1	442.4	493.4	514.7
60°	333.8	355.2	416.1	468.7	491.7
62.5°	297.7	320.7	388.1	444.0	468.7
65°	266.4	289.4	358.5	417.7	444.0
67.5°	225.3	256.6	333.8	389.8	416.1
70°	184.2	226.9	302.6	360.2	384.8
72.5°	152.9	194.1	271.4	328.9	351.9
75°	116.8	162.8	238.5	287.8	302.6
77.5°	87.2	134.9	203.9	228.6	230.2
80°	64.1	103.6	154.6	162.8	169.4
82.5°	44.4	72.4	100.3	110.2	113.5
85°	28.0	42.8	57.6	62.5	62.5
87.5°	14.8	16.4	19.7	19.7	19.7
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)