

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: P308200

Luminaire Tested: **22FCZ2-34HE-UNV-L82765-HRP-CA08-W2A-U-5000K**

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: P308200
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-CA08-W2A-U-5000K
Description: 2'X2' TROFFER LED MODULE, HIGH EFFICIENCY RND PERF. LENS, 0.08" 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: 2476.0 lumens
Efficiency: N/A
Efficacy: 87.8 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

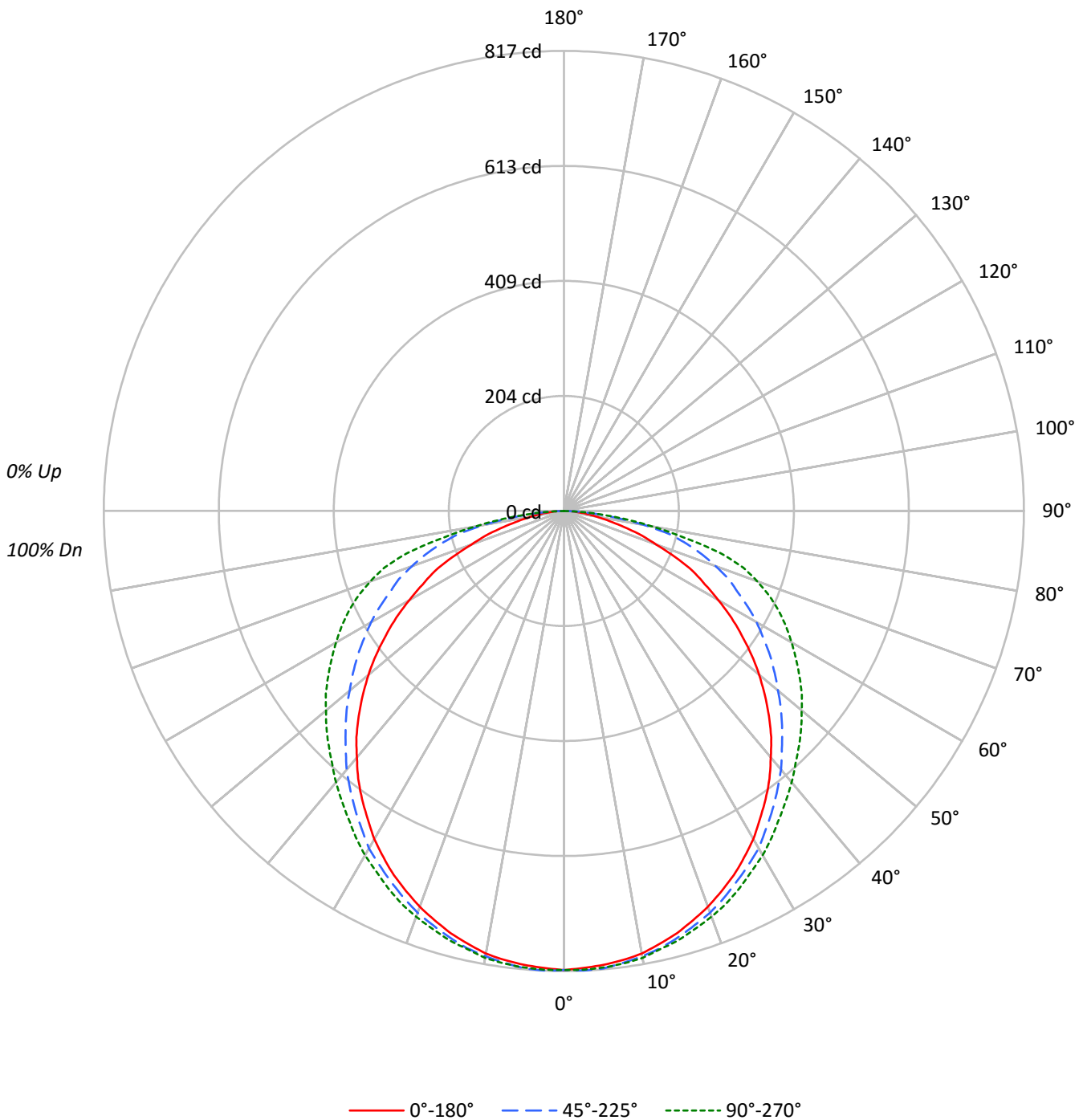
Input Watts (W): 28.2
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	2194	2194	2194
5°	2186	2202	2198
10°	2181	2194	2202
15°	2163	2184	2198
20°	2143	2174	2196
25°	2119	2157	2194
30°	2092	2150	2194
35°	2053	2124	2191
40°	2008	2107	2211
45°	1961	2086	2247
50°	1896	2079	2308
55°	1810	2096	2396
60°	1707	2127	2513
65°	1611	2168	2685
70°	1376	2261	2876
75°	1153	2355	2988
80°	944	2275	2493
85°	821	1689	1834



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	77.3	3.1
10°-20°	221.0	8.9
20°-30°	335.0	13.5
30°-40°	404.5	16.3
40°-50°	425.0	17.2
50°-60°	399.9	16.2
60°-70°	333.4	13.5
70°-80°	220.9	8.9
80°-90°	58.9	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°	633.3	25.6
0°-40°	1037.8	41.9
0°-60°	1862.7	75.2
0°-90°	2476.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2476.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	815	815	815	815	815	
5°	809	811	815	815	814	77
15°	776	779	784	787	789	219
25°	714	718	726	736	739	329
35°	625	631	647	661	667	391
45°	515	523	548	576	590	397
55°	386	403	447	492	511	345
65°	253	275	340	397	422	246
75°	111	155	226	273	287	120
85°	27	41	55	59	59	31
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	815.3	815.3	815.3	815.3	815.3
2.5°	812.2	813.8	816.9	816.9	815.3
5°	809.1	810.6	815.3	815.3	813.8
7.5°	804.4	805.9	809.1	812.2	810.6
10°	798.1	799.7	802.8	805.9	805.9
12.5°	787.2	788.8	795.0	796.6	796.6
15°	776.3	779.4	784.1	787.2	788.8
17.5°	762.2	765.3	771.6	777.8	777.8
20°	748.2	751.3	759.1	765.3	766.9
22.5°	731.0	735.7	743.5	751.3	754.4
25°	713.8	718.5	726.3	735.7	738.8
27.5°	693.5	698.2	709.1	720.0	721.6
30°	673.2	677.9	691.9	701.3	706.0
32.5°	648.2	654.4	668.5	682.6	687.2
35°	624.8	631.0	646.6	660.7	666.9
37.5°	599.8	606.0	623.2	640.4	648.2
40°	571.7	579.5	599.8	618.5	629.5
42.5°	545.1	552.9	573.2	598.2	609.1
45°	515.4	523.2	548.2	576.3	590.4
47.5°	484.2	493.6	523.2	557.6	571.7
50°	453.0	463.9	496.7	535.7	551.4
52.5°	420.2	434.2	471.7	513.9	532.6
55°	385.8	403.0	446.7	492.0	510.7
57.5°	353.0	368.6	420.2	468.6	488.9
60°	317.1	337.4	395.2	445.1	467.0
62.5°	282.7	304.6	368.6	421.7	445.1
65°	253.0	274.9	340.5	396.7	421.7
67.5°	214.0	243.7	317.1	370.2	395.2
70°	174.9	215.5	287.4	342.1	365.5
72.5°	145.3	184.3	257.7	312.4	334.2
75°	110.9	154.6	226.5	273.3	287.4
77.5°	82.8	128.1	193.7	217.1	218.7
80°	60.9	98.4	146.8	154.6	160.9
82.5°	42.2	68.7	95.3	104.6	107.8
85°	26.6	40.6	54.7	59.4	59.4
87.5°	14.1	15.6	18.7	18.7	18.7
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)