

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: P308207

Luminaire Tested: **22FCZ2-34HE-UNV-L82765-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: P308207
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-4000K
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: 2391.0 lumens
Efficiency: N/A
Efficacy: 85.7 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

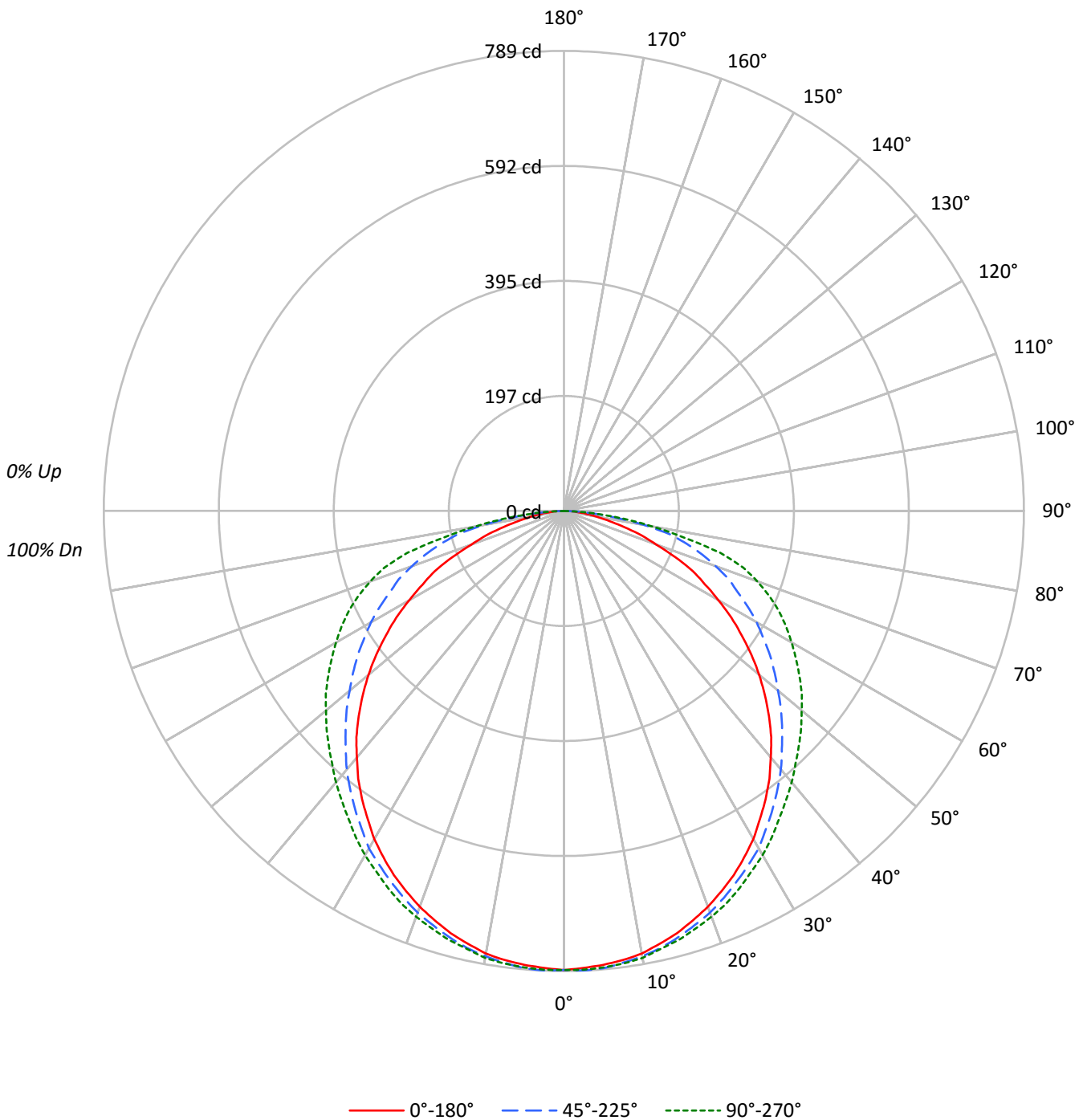
Input Watts (W): 27.9
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	2119	2119	2119
5°	2110	2127	2123
10°	2106	2119	2127
15°	2088	2109	2122
20°	2069	2099	2121
25°	2047	2083	2118
30°	2020	2076	2118
35°	1982	2051	2116
40°	1939	2035	2135
45°	1894	2015	2170
50°	1831	2008	2229
55°	1748	2024	2314
60°	1648	2054	2427
65°	1556	2094	2593
70°	1329	2183	2777
75°	1114	2274	2885
80°	911	2197	2408
85°	790	1630	1769



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	74.6	3.1
10°-20°	213.4	8.9
20°-30°	323.5	13.5
30°-40°	390.6	16.3
40°-50°	410.4	17.2
50°-60°	386.2	16.2
60°-70°	322.0	13.5
70°-80°	213.4	8.9
80°-90°	56.9	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°	611.6	25.6
0°-40°	1002.2	41.9
0°-60°	1798.8	75.2
0°-90°	2391.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2391.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	787	787	787	787	787	
5°	781	783	787	787	786	74
15°	750	753	757	760	762	211
25°	689	694	701	710	713	317
35°	603	609	624	638	644	377
45°	498	505	529	557	570	383
55°	372	389	431	475	493	333
65°	244	266	329	383	407	238
75°	107	149	219	264	278	116
85°	26	39	53	57	57	30
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	787.3	787.3	787.3	787.3	787.3
2.5°	784.3	785.8	788.8	788.8	787.3
5°	781.3	782.8	787.3	787.3	785.8
7.5°	776.8	778.3	781.3	784.3	782.8
10°	770.7	772.2	775.3	778.3	778.3
12.5°	760.2	761.7	767.7	769.2	769.2
15°	749.6	752.6	757.2	760.2	761.7
17.5°	736.0	739.1	745.1	751.1	751.1
20°	722.5	725.5	733.0	739.1	740.6
22.5°	705.9	710.4	717.9	725.5	728.5
25°	689.3	693.8	701.4	710.4	713.4
27.5°	669.7	674.2	684.8	695.3	696.8
30°	650.1	654.6	668.2	677.2	681.7
32.5°	625.9	632.0	645.5	659.1	663.6
35°	603.3	609.4	624.4	638.0	644.0
37.5°	579.2	585.2	601.8	618.4	625.9
40°	552.0	559.6	579.2	597.3	607.8
42.5°	526.4	533.9	553.5	577.7	588.2
45°	497.7	505.3	529.4	556.6	570.1
47.5°	467.6	476.6	505.3	538.5	552.0
50°	437.4	448.0	479.6	517.3	532.4
52.5°	405.7	419.3	455.5	496.2	514.3
55°	372.5	389.1	431.4	475.1	493.2
57.5°	340.9	356.0	405.7	452.5	472.1
60°	306.2	325.8	381.6	429.9	451.0
62.5°	273.0	294.1	356.0	407.2	429.9
65°	244.3	265.5	328.8	383.1	407.2
67.5°	206.6	235.3	306.2	357.5	381.6
70°	168.9	208.1	277.5	330.3	352.9
72.5°	140.3	178.0	248.9	301.7	322.8
75°	107.1	149.3	218.7	264.0	277.5
77.5°	79.9	123.7	187.0	209.7	211.2
80°	58.8	95.0	141.8	149.3	155.4
82.5°	40.7	66.4	92.0	101.1	104.1
85°	25.6	39.2	52.8	57.3	57.3
87.5°	13.6	15.1	18.1	18.1	18.1
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)