

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: P308212

Luminaire Tested: **22FCZ2-34HE-UNV-L82765-HRP-CA125-W2A-U-6500K**

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: P308212
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-6500K
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: 2504.0 lumens
Efficiency: N/A
Efficacy: 86.9 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

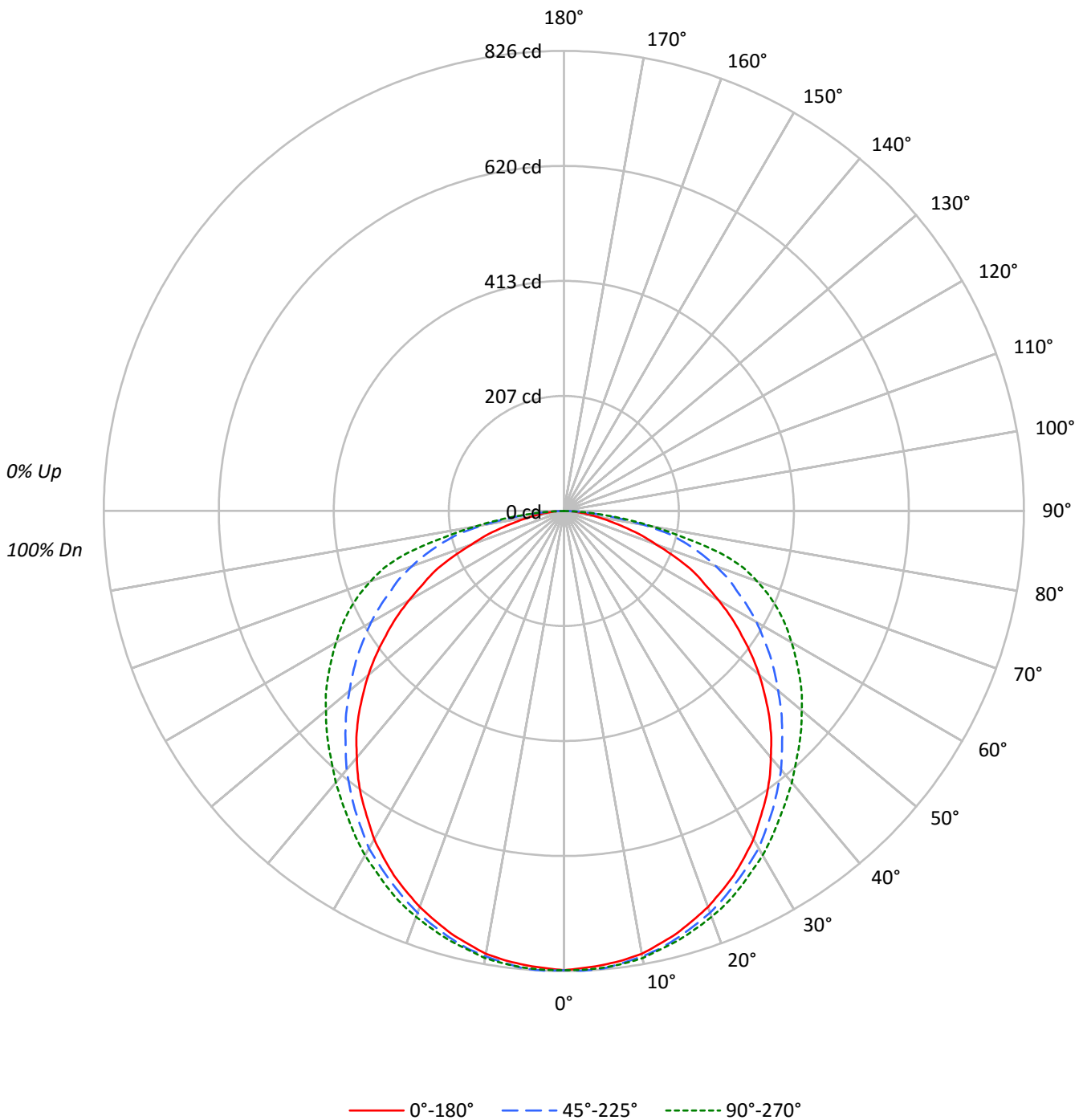
Input Watts (W): 28.8
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	2219	2219	2219
5°	2210	2227	2223
10°	2206	2219	2227
15°	2187	2209	2222
20°	2167	2198	2221
25°	2143	2181	2218
30°	2115	2174	2219
35°	2076	2148	2216
40°	2031	2131	2236
45°	1984	2110	2272
50°	1918	2103	2334
55°	1831	2120	2423
60°	1726	2151	2542
65°	1629	2192	2716
70°	1392	2286	2908
75°	1166	2381	3021
80°	955	2301	2521
85°	831	1707	1853



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	78.1	3.1
10°-20°	223.5	8.9
20°-30°	338.8	13.5
30°-40°	409.1	16.3
40°-50°	429.8	17.2
50°-60°	404.4	16.2
60°-70°	337.2	13.5
70°-80°	223.4	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°	640.5	25.6
0°-40°	1049.5	41.9
0°-60°	1883.8	75.2
0°-90°	2504.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2504.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	824	824	824	824	824	
5°	818	820	824	824	823	78
15°	785	788	793	796	798	221
25°	722	727	734	744	747	332
35°	632	638	654	668	674	395
45°	521	529	554	583	597	402
55°	390	408	452	498	516	349
65°	256	278	344	401	426	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°	824.5	824.5	824.5	824.5	824.5
2.5°	821.4	823.0	826.1	826.1	824.5
5°	818.2	819.8	824.5	824.5	823.0
7.5°	813.5	815.1	818.2	821.4	819.8
10°	807.2	808.7	811.9	815.1	815.1
12.5°	796.1	797.7	804.0	805.6	805.6
15°	785.0	788.2	792.9	796.1	797.7
17.5°	770.8	774.0	780.3	786.6	786.6
20°	756.6	759.8	767.7	774.0	775.6
22.5°	739.2	744.0	751.9	759.8	762.9
25°	721.9	726.6	734.5	744.0	747.1
27.5°	701.3	706.1	717.1	728.2	729.8
30°	680.8	685.5	699.8	709.2	714.0
32.5°	655.5	661.8	676.1	690.3	695.0
35°	631.8	638.1	653.9	668.2	674.5
37.5°	606.6	612.9	630.3	647.6	655.5
40°	578.1	586.0	606.6	625.5	636.6
42.5°	551.3	559.2	579.7	605.0	616.0
45°	521.3	529.2	554.4	582.9	597.1
47.5°	489.7	499.1	529.2	563.9	578.1
50°	458.1	469.1	502.3	541.8	557.6
52.5°	424.9	439.1	477.0	519.7	538.6
55°	390.2	407.5	451.8	497.6	516.5
57.5°	357.0	372.8	424.9	473.9	494.4
60°	320.7	341.2	399.6	450.2	472.3
62.5°	285.9	308.0	372.8	426.5	450.2
65°	255.9	278.0	344.3	401.2	426.5
67.5°	216.4	246.4	320.7	374.4	399.6
70°	176.9	218.0	290.6	345.9	369.6
72.5°	146.9	186.4	260.6	315.9	338.0
75°	112.1	156.4	229.0	276.4	290.6
77.5°	83.7	129.5	195.9	219.6	221.1
80°	61.6	99.5	148.5	156.4	162.7
82.5°	42.6	69.5	96.4	105.8	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)