

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: P308209

Luminaire Tested: **22FCZ2-34HE-UNV-L82765-HRP-CA125-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: P308209
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-5000K
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: 2467.0 lumens
Efficiency: N/A
Efficacy: 87.5 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

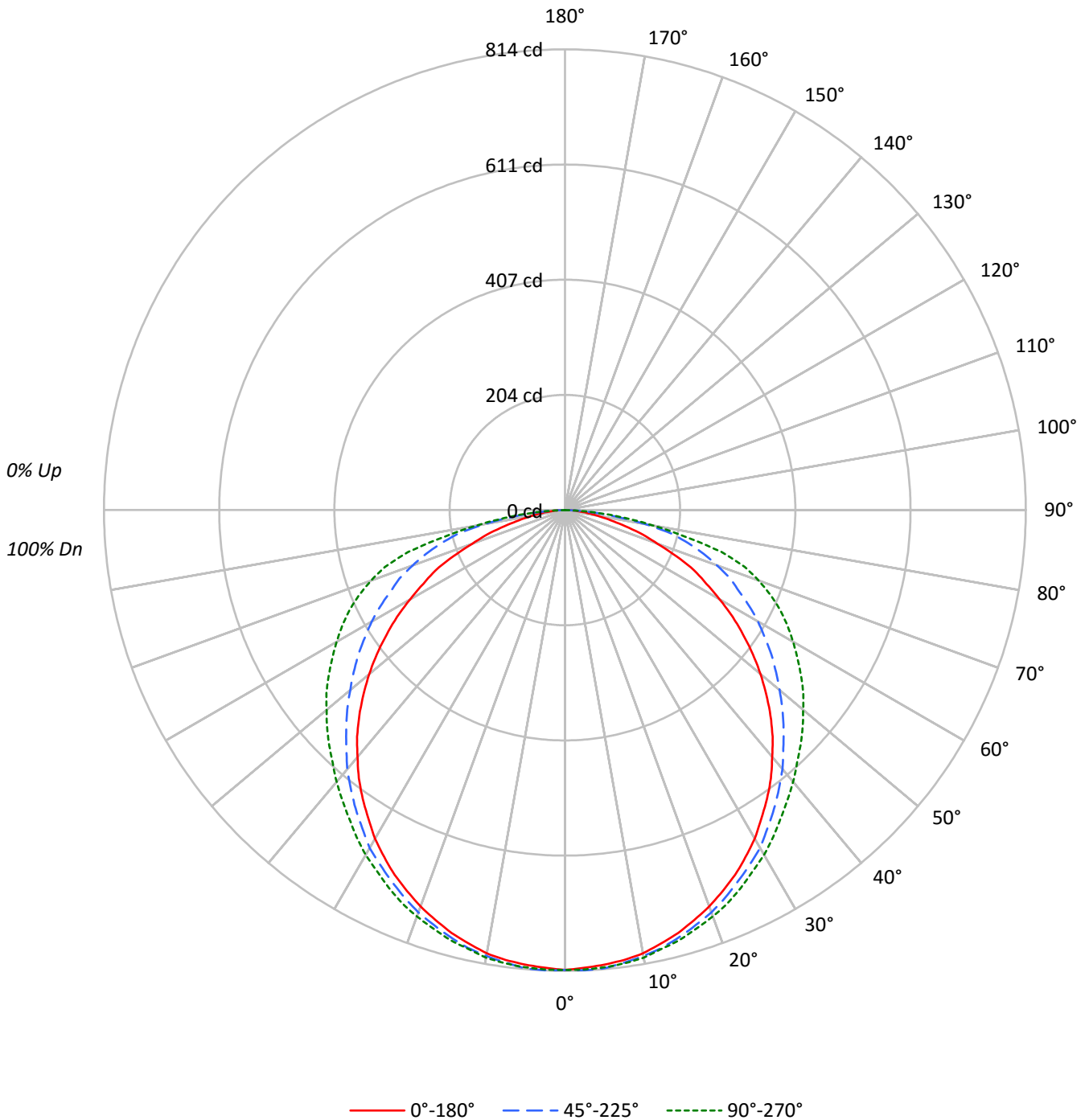
Input Watts (W): 28.2
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	2186	2186	2186
5°	2177	2195	2190
10°	2173	2186	2194
15°	2155	2176	2189
20°	2135	2166	2188
25°	2112	2148	2186
30°	2084	2142	2186
35°	2045	2117	2183
40°	2001	2099	2203
45°	1955	2079	2239
50°	1889	2072	2300
55°	1803	2088	2388
60°	1700	2119	2504
65°	1605	2160	2676
70°	1371	2253	2865
75°	1149	2347	2977
80°	941	2267	2484
85°	818	1683	1825



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	77.0	3.1
10°-20°	220.2	8.9
20°-30°	333.8	13.5
30°-40°	403.0	16.3
40°-50°	423.5	17.2
50°-60°	398.5	16.2
60°-70°	332.2	13.5
70°-80°	220.1	8.9
80°-90°	58.7	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°	631.0	25.6
0°-40°	1034.0	41.9
0°-60°	1856.0	75.2
0°-90°	2467.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2467.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	812	812	812	812	812	
5°	806	808	812	812	811	77
15°	773	777	781	784	786	218
25°	711	716	724	733	736	327
35°	622	629	644	658	664	389
45°	514	521	546	574	588	396
55°	384	402	445	490	509	344
65°	252	274	339	395	420	245
75°	110	154	226	272	286	120
85°	26	40	54	59	59	31
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	812.4	812.4	812.4	812.4	812.4
2.5°	809.2	810.8	813.9	813.9	812.4
5°	806.1	807.7	812.4	812.4	810.8
7.5°	801.5	803.0	806.1	809.2	807.7
10°	795.2	796.8	799.9	803.0	803.0
12.5°	784.3	785.9	792.1	793.7	793.7
15°	773.4	776.6	781.2	784.3	785.9
17.5°	759.4	762.6	768.8	775.0	775.0
20°	745.4	748.5	756.3	762.6	764.1
22.5°	728.3	733.0	740.8	748.5	751.7
25°	711.2	715.9	723.6	733.0	736.1
27.5°	691.0	695.6	706.5	717.4	719.0
30°	670.7	675.4	689.4	698.8	703.4
32.5°	645.8	652.1	666.1	680.1	684.7
35°	622.5	628.7	644.3	658.3	664.5
37.5°	597.6	603.8	620.9	638.1	645.8
40°	569.6	577.4	597.6	616.3	627.2
42.5°	543.1	550.9	571.1	596.0	606.9
45°	513.6	521.3	546.2	574.3	588.3
47.5°	482.4	491.8	521.3	555.6	569.6
50°	451.3	462.2	494.9	533.8	549.4
52.5°	418.6	432.6	470.0	512.0	530.7
55°	384.4	401.5	445.1	490.2	508.9
57.5°	351.7	367.3	418.6	466.9	487.1
60°	315.9	336.1	393.7	443.5	465.3
62.5°	281.7	303.5	367.3	420.2	443.5
65°	252.1	273.9	339.3	395.3	420.2
67.5°	213.2	242.8	315.9	368.8	393.7
70°	174.3	214.8	286.3	340.8	364.2
72.5°	144.7	183.6	256.8	311.2	333.0
75°	110.5	154.1	225.7	272.3	286.3
77.5°	82.5	127.6	193.0	216.3	217.9
80°	60.7	98.0	146.3	154.1	160.3
82.5°	42.0	68.5	94.9	104.3	107.4
85°	26.5	40.5	54.5	59.1	59.1
87.5°	14.0	15.6	18.7	18.7	18.7
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)