

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: P308205

Luminaire Tested: **22FCZ2-34HE-UNV-L82765-HRP-CA125-W2A-U-3000K**

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: P308205
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-3000K
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: 2262.0 lumens
Efficiency: N/A
Efficacy: 82.6 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

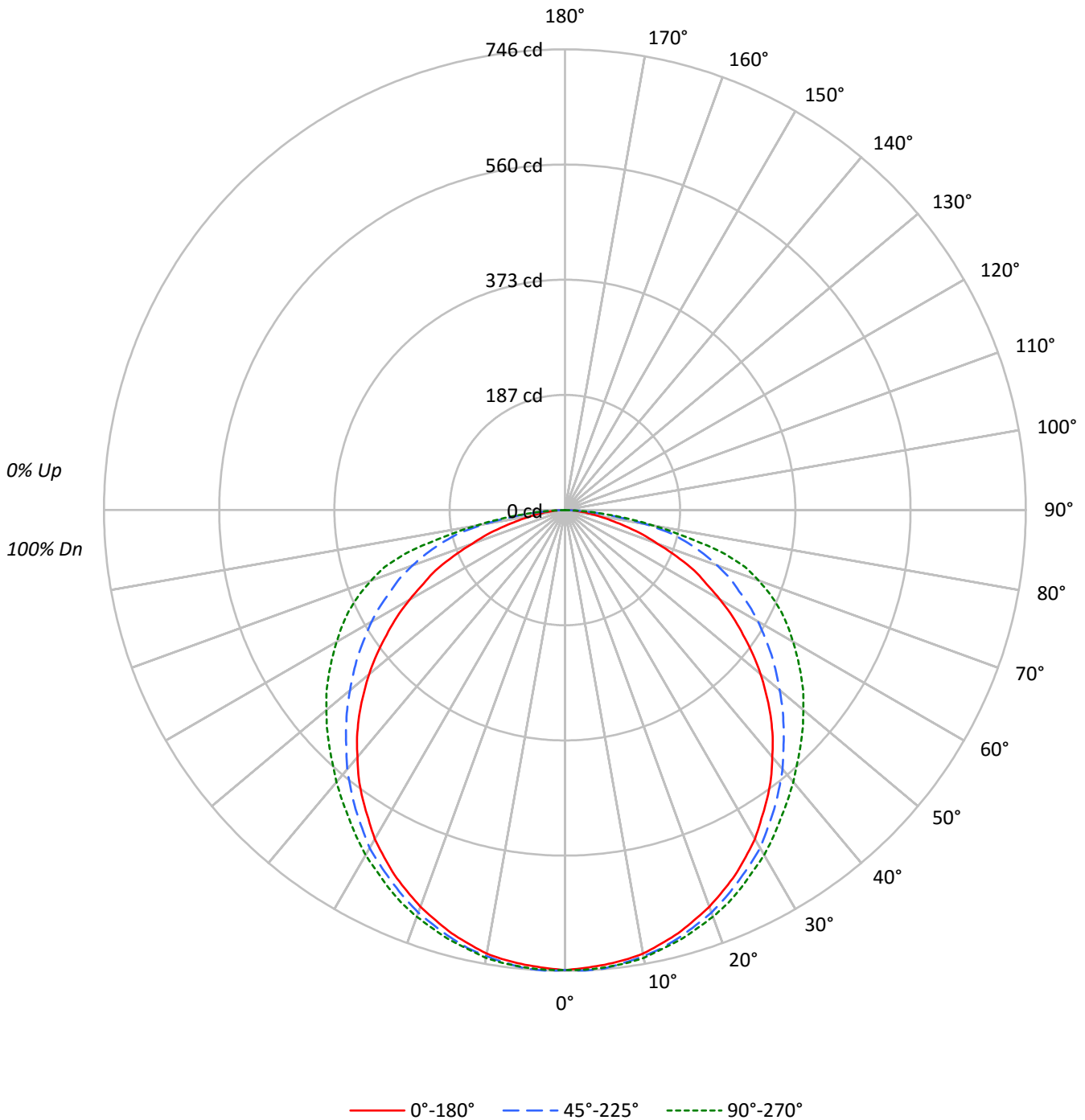
Input Watts (W): 27.4
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	2005	2005	2005
5°	1996	2012	2008
10°	1993	2004	2012
15°	1976	1996	2008
20°	1957	1986	2006
25°	1936	1970	2004
30°	1911	1964	2004
35°	1875	1940	2002
40°	1835	1925	2020
45°	1792	1906	2053
50°	1732	1900	2109
55°	1653	1915	2189
60°	1559	1943	2296
65°	1472	1981	2453
70°	1257	2066	2627
75°	1053	2151	2730
80°	862	2078	2278
85°	750	1541	1673



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	70.6	3.1
10°-20°	201.9	8.9
20°-30°	306.0	13.5
30°-40°	369.5	16.3
40°-50°	388.3	17.2
50°-60°	365.3	16.2
60°-70°	304.6	13.5
70°-80°	201.8	8.9
80°-90°	53.8	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°	578.6	25.6
0°-40°	948.1	41.9
0°-60°	1701.7	75.2
0°-90°	2262.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2262.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	745	745	745	745	745	
5°	739	741	745	745	743	70
15°	709	712	716	719	721	200
25°	652	656	664	672	675	300
35°	571	576	591	604	609	357
45°	471	478	501	526	539	363
55°	352	368	408	450	467	315
65°	231	251	311	362	385	225
75°	101	141	207	250	263	110
85°	24	37	50	54	54	28
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	744.9	744.9	744.9	744.9	744.9
2.5°	742.0	743.4	746.3	746.3	744.9
5°	739.1	740.6	744.9	744.9	743.4
7.5°	734.9	736.3	739.1	742.0	740.6
10°	729.2	730.6	733.4	736.3	736.3
12.5°	719.2	720.6	726.3	727.7	727.7
15°	709.2	712.0	716.3	719.2	720.6
17.5°	696.3	699.2	704.9	710.6	710.6
20°	683.5	686.3	693.5	699.2	700.6
22.5°	667.8	672.1	679.2	686.3	689.2
25°	652.1	656.4	663.5	672.1	674.9
27.5°	633.6	637.8	647.8	657.8	659.2
30°	615.0	619.3	632.1	640.7	645.0
32.5°	592.2	597.9	610.7	623.6	627.8
35°	570.8	576.5	590.7	603.6	609.3
37.5°	547.9	553.6	569.3	585.0	592.2
40°	522.3	529.4	547.9	565.1	575.0
42.5°	498.0	505.1	523.7	546.5	556.5
45°	470.9	478.0	500.8	526.5	539.4
47.5°	442.3	450.9	478.0	509.4	522.3
50°	413.8	423.8	453.8	489.4	503.7
52.5°	383.8	396.7	430.9	469.5	486.6
55°	352.4	368.1	408.1	449.5	466.6
57.5°	322.5	336.8	383.8	428.1	446.6
60°	289.7	308.2	361.0	406.7	426.6
62.5°	258.3	278.2	336.8	385.3	406.7
65°	231.2	251.1	311.1	362.4	385.3
67.5°	195.5	222.6	289.7	338.2	361.0
70°	159.8	196.9	262.6	312.5	333.9
72.5°	132.7	168.4	235.4	285.4	305.4
75°	101.3	141.3	206.9	249.7	262.6
77.5°	75.6	117.0	176.9	198.3	199.8
80°	55.6	89.9	134.1	141.3	147.0
82.5°	38.5	62.8	87.0	95.6	98.5
85°	24.3	37.1	49.9	54.2	54.2
87.5°	12.8	14.3	17.1	17.1	17.1
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)