

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: P308164

Luminaire Tested: **22FCZ2-29HE-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: P308164
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: 22FCZ2-29HE-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: 2046.0 lumens
Efficiency: N/A
Efficacy: 89.3 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

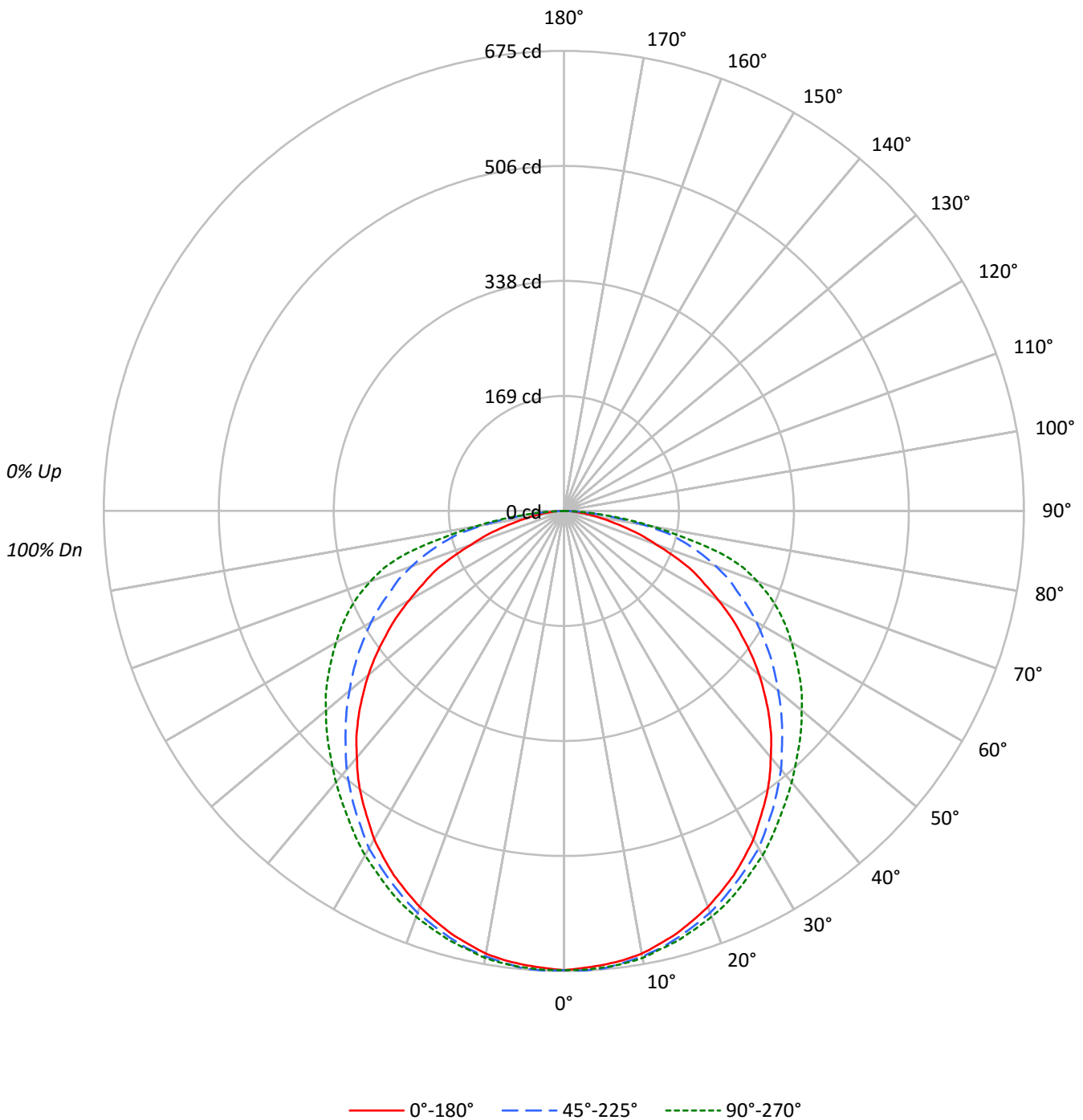
Input Watts (W): 22.9
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	1813	1813	1813
5°	1806	1820	1816
10°	1802	1813	1820
15°	1787	1805	1816
20°	1770	1796	1815
25°	1751	1782	1813
30°	1729	1777	1813
35°	1696	1755	1810
40°	1659	1741	1827
45°	1621	1724	1857
50°	1567	1718	1907
55°	1496	1732	1980
60°	1410	1757	2077
65°	1331	1792	2219
70°	1138	1869	2376
75°	952	1945	2469
80°	779	1880	2060
85°	676	1396	1513



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	63.9	3.1
10°-20°	182.6	8.9
20°-30°	276.8	13.5
30°-40°	334.2	16.3
40°-50°	351.2	17.2
50°-60°	330.5	16.2
60°-70°	275.5	13.5
70°-80°	182.6	8.9
80°-90°	48.7	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°	523.3	25.6
0°-40°	857.6	41.9
0°-60°	1539.2	75.2
0°-90°	2046.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2046.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	674	674	674	674	674	
5°	669	670	674	674	672	64
15°	642	644	648	650	652	181
25°	590	594	600	608	610	272
35°	516	521	534	546	551	323
45°	426	432	453	476	488	328
55°	319	333	369	407	422	285
65°	209	227	281	328	348	203
75°	92	128	187	226	238	99
85°	22	34	45	49	49	25
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	673.7	673.7	673.7	673.7	673.7
2.5°	671.1	672.4	675.0	675.0	673.7
5°	668.6	669.9	673.7	673.7	672.4
7.5°	664.7	666.0	668.6	671.1	669.9
10°	659.5	660.8	663.4	666.0	666.0
12.5°	650.5	651.8	656.9	658.2	658.2
15°	641.5	644.0	647.9	650.5	651.8
17.5°	629.8	632.4	637.6	642.7	642.7
20°	618.2	620.8	627.3	632.4	633.7
22.5°	604.0	607.9	614.4	620.8	623.4
25°	589.8	593.7	600.2	607.9	610.5
27.5°	573.1	576.9	586.0	595.0	596.3
30°	556.3	560.1	571.8	579.5	583.4
32.5°	535.6	540.8	552.4	564.0	567.9
35°	516.3	521.4	534.3	545.9	551.1
37.5°	495.6	500.8	515.0	529.2	535.6
40°	472.4	478.8	495.6	511.1	520.1
42.5°	450.4	456.9	473.7	494.3	503.4
45°	425.9	432.4	453.0	476.3	487.9
47.5°	400.1	407.8	432.4	460.8	472.4
50°	374.3	383.3	410.4	442.7	455.6
52.5°	347.2	358.8	389.8	424.6	440.1
55°	318.8	333.0	369.1	406.6	422.0
57.5°	291.7	304.6	347.2	387.2	404.0
60°	262.0	278.8	326.5	367.8	385.9
62.5°	233.6	251.7	304.6	348.5	367.8
65°	209.1	227.2	281.4	327.8	348.5
67.5°	176.8	201.3	262.0	305.9	326.5
70°	144.6	178.1	237.5	282.7	302.0
72.5°	120.0	152.3	213.0	258.1	276.2
75°	91.6	127.8	187.1	225.9	237.5
77.5°	68.4	105.8	160.0	179.4	180.7
80°	50.3	81.3	121.3	127.8	132.9
82.5°	34.8	56.8	78.7	86.5	89.1
85°	21.9	33.6	45.2	49.0	49.0
87.5°	11.6	12.9	15.5	15.5	15.5
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)