

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: P312500

Luminaire Tested: **22FCZ2-29HE-UNV-L83050-HRP-CP125-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: P312500
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-L83050-HRP-CP125-W2A-U-3000K
Description: 2'X2' TROFFER LED MODULE, HIGH EFFICIENCY RND PERF. LENS, 0.125" POLYCARB 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: 1908.0 lumens
Efficiency: N/A
Efficacy: 85.2 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

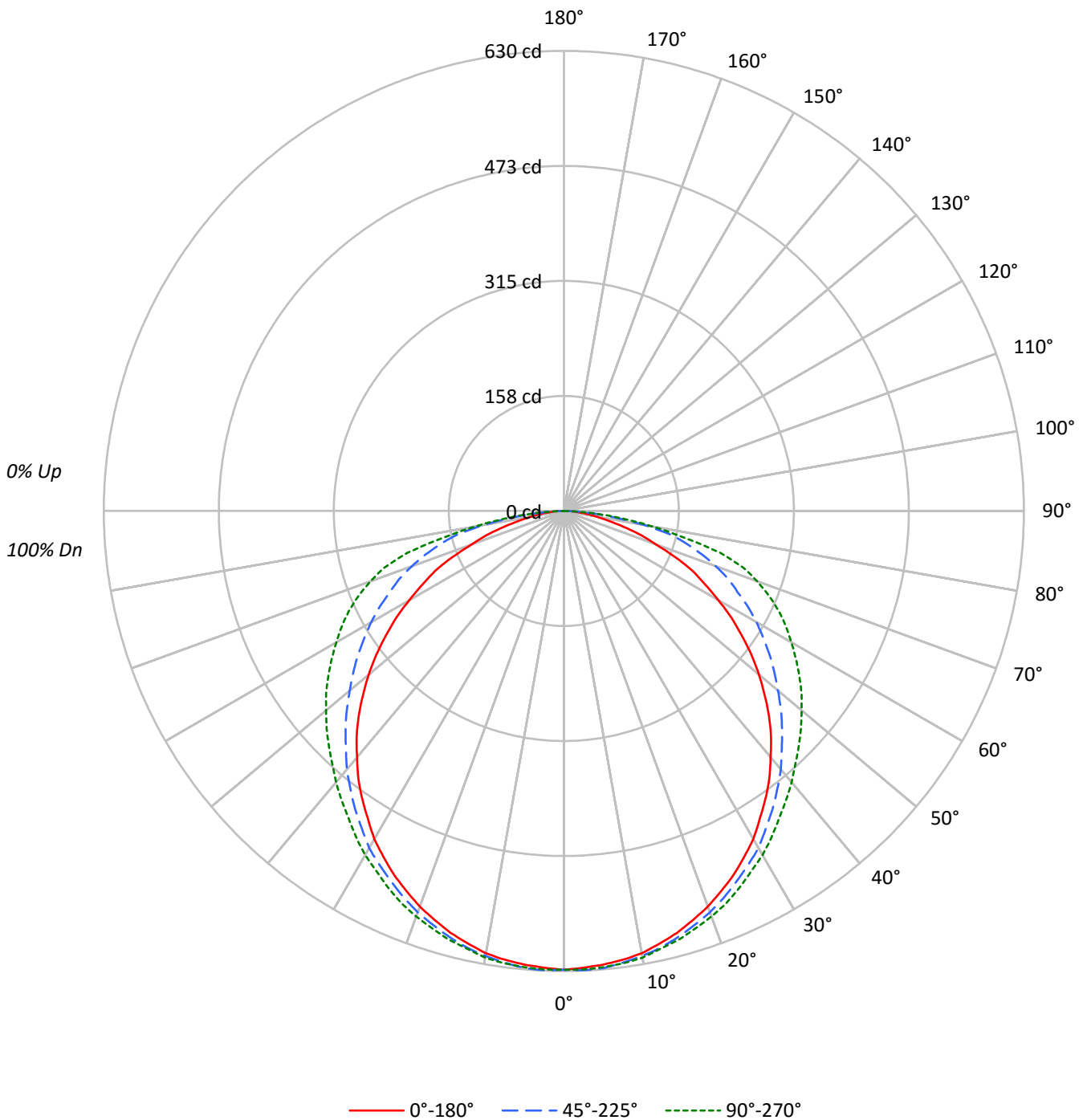
Input Watts (W): 22.4
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	1691	1691	1691
5°	1684	1697	1694
10°	1680	1691	1697
15°	1667	1683	1693
20°	1651	1675	1692
25°	1633	1662	1690
30°	1612	1657	1690
35°	1581	1637	1688
40°	1547	1624	1704
45°	1512	1608	1732
50°	1461	1602	1779
55°	1395	1615	1847
60°	1315	1639	1937
65°	1242	1671	2069
70°	1061	1743	2216
75°	889	1814	2303
80°	727	1753	1922
85°	633	1300	1411



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	59.5	3.1
10°-20°	170.3	8.9
20°-30°	258.1	13.5
30°-40°	311.7	16.3
40°-50°	327.5	17.2
50°-60°	308.2	16.2
60°-70°	257.0	13.5
70°-80°	170.2	8.9
80°-90°	45.4	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°	488.0	25.6
0°-40°	799.7	41.9
0°-60°	1435.4	75.2
0°-90°	1908.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1908.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	628	628	628	628	628	
5°	624	625	628	628	627	59
15°	598	601	604	607	608	169
25°	550	554	560	567	569	253
35°	481	486	498	509	514	301
45°	397	403	422	444	455	306
55°	297	310	344	379	394	266
65°	195	212	262	306	325	190
75°	86	119	174	211	222	93
85°	20	31	42	46	46	24
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	628.3	628.3	628.3	628.3	628.3
2.5°	625.9	627.1	629.5	629.5	628.3
5°	623.5	624.7	628.3	628.3	627.1
7.5°	619.9	621.1	623.5	625.9	624.7
10°	615.0	616.2	618.7	621.1	621.1
12.5°	606.6	607.8	612.6	613.8	613.8
15°	598.2	600.6	604.2	606.6	607.8
17.5°	587.4	589.8	594.6	599.4	599.4
20°	576.5	578.9	585.0	589.8	591.0
22.5°	563.3	566.9	572.9	578.9	581.3
25°	550.0	553.7	559.7	566.9	569.3
27.5°	534.4	538.0	546.4	554.9	556.1
30°	518.8	522.4	533.2	540.4	544.0
32.5°	499.5	504.3	515.1	526.0	529.6
35°	481.4	486.3	498.3	509.1	513.9
37.5°	462.2	467.0	480.2	493.5	499.5
40°	440.5	446.5	462.2	476.6	485.1
42.5°	420.1	426.1	441.7	461.0	469.4
45°	397.2	403.2	422.5	444.1	455.0
47.5°	373.1	380.3	403.2	429.7	440.5
50°	349.0	357.5	382.7	412.8	424.9
52.5°	323.8	334.6	363.5	396.0	410.4
55°	297.3	310.5	344.2	379.1	393.6
57.5°	272.0	284.1	323.8	361.1	376.7
60°	244.3	260.0	304.5	343.0	359.9
62.5°	217.9	234.7	284.1	325.0	343.0
65°	195.0	211.8	262.4	305.7	325.0
67.5°	164.9	187.8	244.3	285.3	304.5
70°	134.8	166.1	221.5	263.6	281.6
72.5°	111.9	142.0	198.6	240.7	257.6
75°	85.5	119.2	174.5	210.6	221.5
77.5°	63.8	98.7	149.2	167.3	168.5
80°	46.9	75.8	113.1	119.2	124.0
82.5°	32.5	53.0	73.4	80.6	83.0
85°	20.5	31.3	42.1	45.7	45.7
87.5°	10.8	12.0	14.4	14.4	14.4
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)