

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: P308428

Luminaire Tested: **22FCZ2-29HE-UNV-L82765-RDP-CA08-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: P308428
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1805-783-24)
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-RDP-CA08-W2A-U-6500K
Description: 2'X2' TROFFER LED MODULE, SMOOTH LENS WITH INSERT, 0.08" 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: 1796.0 lumens
Efficiency: N/A
Efficacy: 76.8 lumens/watt
Spacing Criteria (0/90/45): 1.25 / 1.3 / 1.41
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

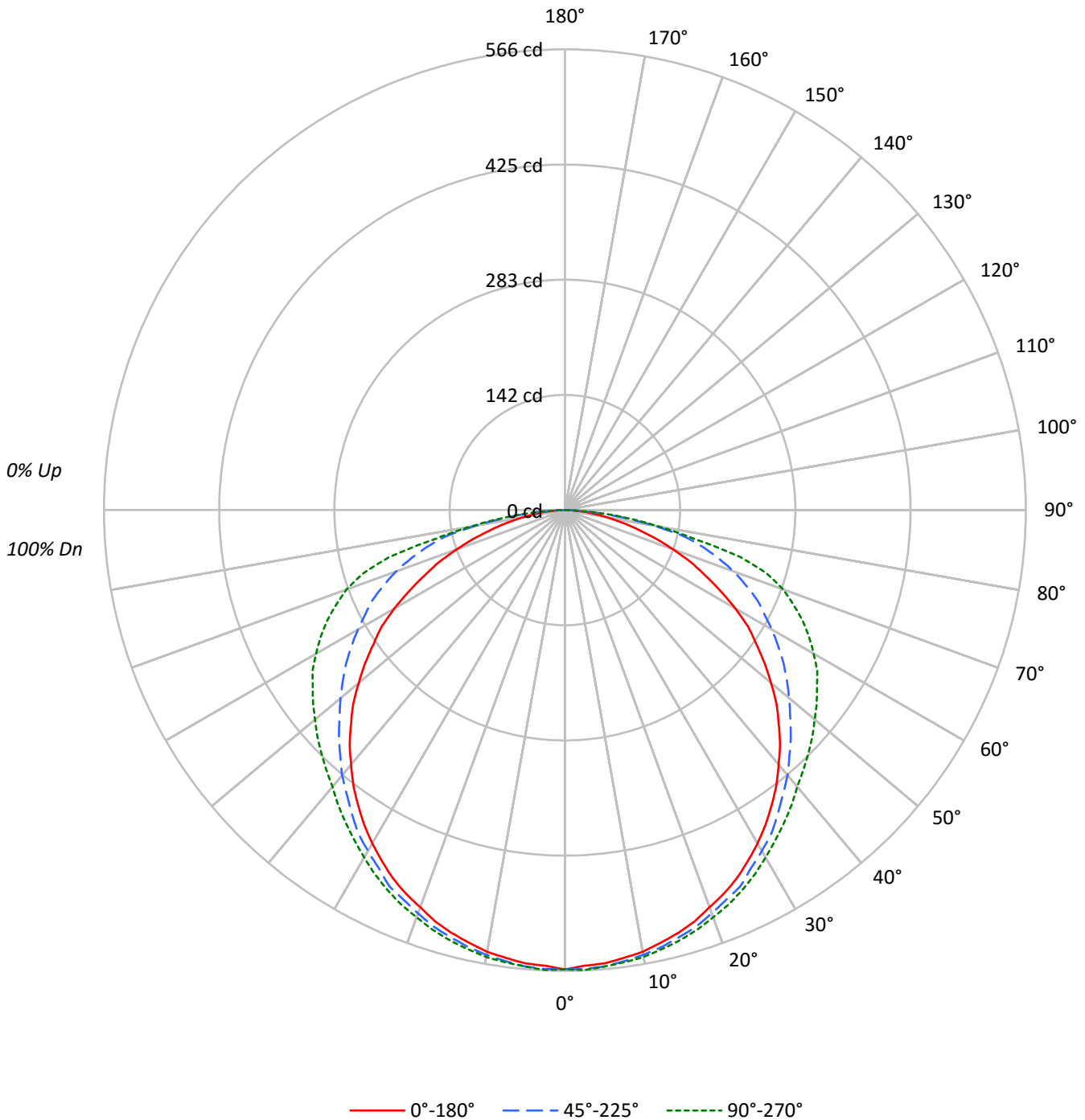
Input Watts (W): 23.4
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	100	96	92	96	92	89	92	89	86	88	86	84	82
2	97	88	81	75	95	86	80	74	83	77	72	80	75	71	76	72	69	67
3	88	77	68	61	86	75	67	61	72	65	60	70	64	59	67	62	58	55
4	80	68	59	51	78	66	58	51	64	56	50	61	55	50	59	54	49	47
5	74	60	51	44	72	59	50	44	57	49	43	55	48	43	53	47	42	40
6	68	54	45	38	66	53	44	38	51	43	38	50	43	37	48	42	37	35
7	63	49	40	33	61	48	39	33	47	39	33	45	38	33	44	37	33	31
8	59	45	36	30	57	44	35	30	43	35	29	41	34	29	40	34	29	27
9	55	41	32	27	53	40	32	27	39	32	26	38	31	26	37	31	26	24
10	51	38	30	24	50	37	29	24	36	29	24	35	29	24	34	28	24	22

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	1518	1518	1518
5°	1510	1520	1520
10°	1505	1516	1523
15°	1498	1513	1524
20°	1487	1510	1525
25°	1483	1514	1530
30°	1470	1503	1531
35°	1454	1497	1541
40°	1434	1494	1559
45°	1413	1493	1609
50°	1383	1505	1676
55°	1345	1537	1773
60°	1301	1579	1899
65°	1212	1657	2053
70°	1113	1736	2245
75°	975	1827	2322
80°	840	1740	1822
85°	735	1266	1386



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	53.4	3.0
10°-20°	153.2	8.5
20°-30°	233.8	13.0
30°-40°	285.4	15.9
40°-50°	305.2	17.0
50°-60°	294.6	16.4
60°-70°	253.6	14.1
70°-80°	171.6	9.6
80°-90°	45.3	2.5
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°	440.4	24.5
0°-40°	725.8	40.4
0°-60°	1325.6	73.8
0°-90°	1796.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1796.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	564	564	564	564	564	
5°	559	560	563	563	563	53
15°	538	539	543	546	547	152
25°	499	502	510	513	515	230
35°	443	447	456	465	469	277
45°	371	378	392	412	423	287
55°	287	296	328	361	378	257
65°	190	209	260	301	322	189
75°	94	124	176	211	223	101
85°	24	33	41	42	45	27
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	564.2	564.2	564.2	564.2	564.2
2.5°	560.2	561.5	564.2	564.2	565.5
5°	558.9	560.2	562.8	562.8	562.8
7.5°	554.9	556.2	558.9	560.2	560.2
10°	550.9	552.3	554.9	556.2	557.5
12.5°	544.3	545.7	549.6	552.3	552.3
15°	537.7	539.1	543.0	545.7	547.0
17.5°	529.8	532.4	536.4	539.1	540.4
20°	519.2	521.9	527.2	531.1	532.4
22.5°	510.0	512.6	517.9	521.9	524.5
25°	499.4	502.1	510.0	512.6	515.3
27.5°	486.2	488.8	495.5	500.7	504.7
30°	473.0	475.6	483.6	490.2	492.8
32.5°	458.5	462.4	471.7	477.0	480.9
35°	442.6	446.6	455.8	465.1	469.0
37.5°	426.7	430.7	440.0	451.9	457.1
40°	408.3	413.5	425.4	441.3	443.9
42.5°	391.1	397.7	408.3	426.7	433.4
45°	371.3	377.9	392.4	412.2	422.8
47.5°	352.8	359.4	375.2	399.0	412.2
50°	330.3	339.5	359.4	387.1	400.3
52.5°	309.2	317.1	343.5	373.9	389.8
55°	286.7	296.0	327.7	360.7	377.9
57.5°	266.9	274.8	310.5	347.5	367.3
60°	241.8	252.4	293.3	332.9	352.8
62.5°	215.4	231.2	276.1	317.1	338.2
65°	190.3	208.8	260.3	301.2	322.4
67.5°	167.8	187.6	240.5	284.1	303.9
70°	141.4	166.5	220.6	262.9	285.4
72.5°	117.6	145.3	198.2	240.5	260.3
75°	93.8	124.2	175.7	211.4	223.3
77.5°	72.7	101.7	150.6	161.2	162.5
80°	54.2	80.6	112.3	113.6	117.6
82.5°	37.0	56.8	72.7	79.3	80.6
85°	23.8	33.0	41.0	42.3	44.9
87.5°	10.6	11.9	14.5	13.2	13.2
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)