

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: P312716

Luminaire Tested: **22FCZ2-44HE-UNV-L83050-RDP-CA08-W2A-U-3500K**

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: P312716
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: 22FCZ2-44HE-UNV-L83050-RDP-CA08-W2A-U-3500K
Description: 2'X2' TROFFER LED MODULE, SMOOTH LENS WITH INSERT, 0.08" ACRYLIC SHEET
Light Source: (168) 3500K 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: 2663.0 lumens
Efficiency: N/A
Efficacy: 71.6 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

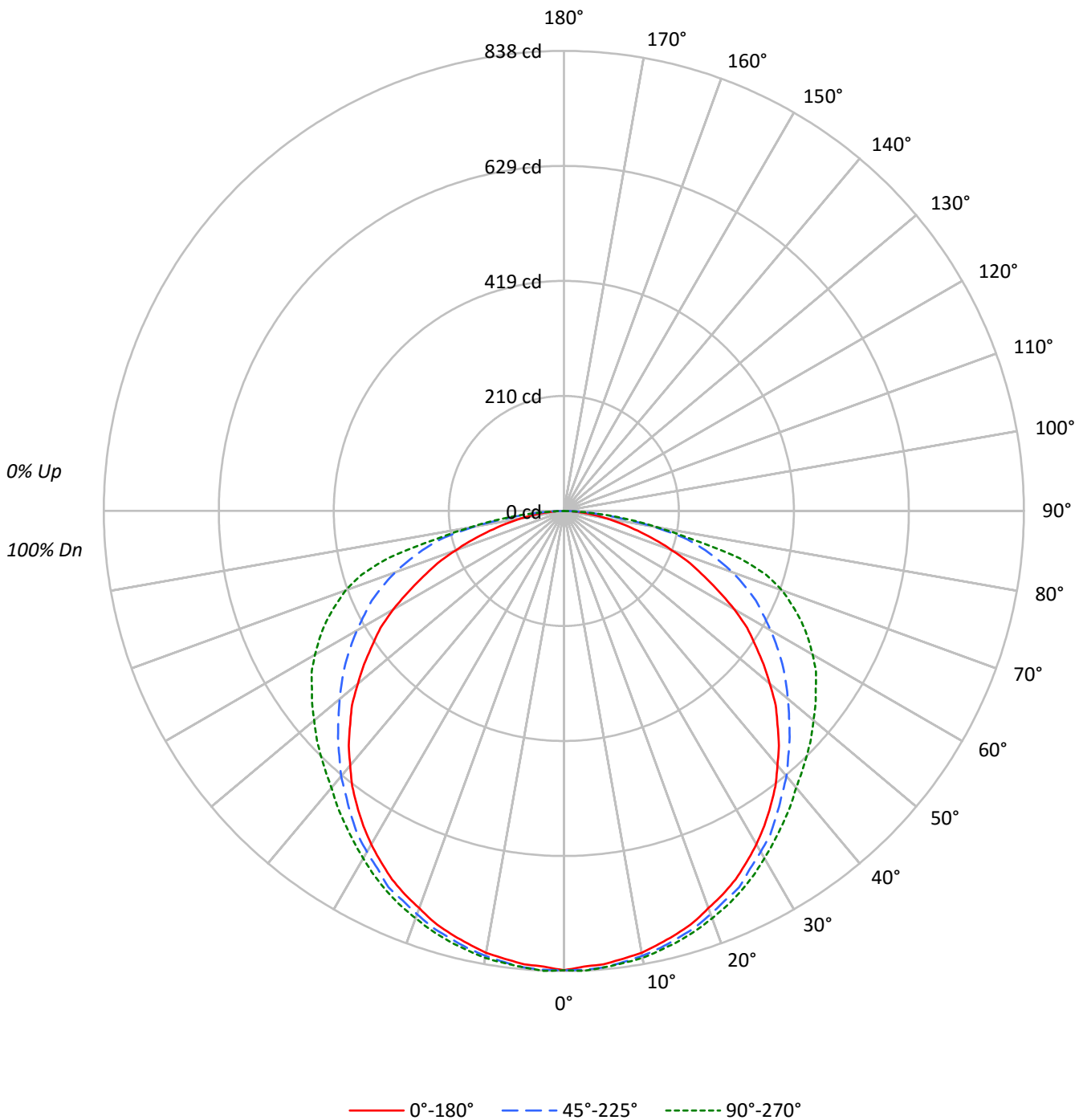
Input Watts (W): 37.2
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	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°	2251	2251	2251
5°	2239	2254	2254
10°	2232	2248	2259
15°	2221	2243	2259
20°	2205	2238	2261
25°	2199	2245	2268
30°	2179	2228	2270
35°	2156	2220	2284
40°	2126	2216	2312
45°	2095	2214	2386
50°	2051	2231	2485
55°	1994	2279	2629
60°	1929	2341	2815
65°	1796	2457	3044
70°	1649	2574	3329
75°	1446	2708	3442
80°	1244	2580	2703
85°	1090	1874	2056



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	79.1	3.0
10°-20°	227.2	8.5
20°-30°	346.6	13.0
30°-40°	423.2	15.9
40°-50°	452.5	17.0
50°-60°	436.8	16.4
60°-70°	376.0	14.1
70°-80°	254.4	9.6
80°-90°	67.1	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°	652.9	24.5
0°-40°	1076.2	40.4
0°-60°	1965.5	73.8
0°-90°	2663.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2663.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	836	836	836	836	836	
5°	829	831	834	834	834	79
15°	797	799	805	809	811	225
25°	740	744	756	760	764	341
35°	656	662	676	690	695	411
45°	550	560	582	611	627	425
55°	425	439	486	535	560	381
65°	282	310	386	447	478	281
75°	139	184	260	313	331	149
85°	35	49	61	63	67	40
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	836.5	836.5	836.5	836.5	836.5
2.5°	830.6	832.6	836.5	836.5	838.5
5°	828.7	830.6	834.5	834.5	834.5
7.5°	822.8	824.7	828.7	830.6	830.6
10°	816.9	818.9	822.8	824.7	826.7
12.5°	807.1	809.1	814.9	818.9	818.9
15°	797.3	799.3	805.2	809.1	811.0
17.5°	785.6	789.5	795.4	799.3	801.2
20°	769.9	773.8	781.6	787.5	789.5
22.5°	756.2	760.1	767.9	773.8	777.7
25°	740.5	744.4	756.2	760.1	764.0
27.5°	720.9	724.8	734.6	742.5	748.3
30°	701.3	705.2	717.0	726.8	730.7
32.5°	679.8	685.7	699.4	707.2	713.1
35°	656.3	662.1	675.9	689.6	695.4
37.5°	632.8	638.6	652.3	670.0	677.8
40°	605.3	613.2	630.8	654.3	658.2
42.5°	579.9	589.7	605.3	632.8	642.6
45°	550.5	560.3	581.8	611.2	626.9
47.5°	523.1	532.8	556.4	591.6	611.2
50°	489.8	503.5	532.8	574.0	593.6
52.5°	458.4	470.2	509.3	554.4	577.9
55°	425.1	438.8	485.8	534.8	560.3
57.5°	395.7	407.5	460.4	515.2	544.6
60°	358.5	374.2	434.9	493.7	523.1
62.5°	319.3	342.8	409.4	470.2	501.5
65°	282.1	309.5	385.9	446.7	478.0
67.5°	248.8	278.2	356.5	421.2	450.6
70°	209.6	246.8	327.2	389.8	423.1
72.5°	174.4	215.5	293.9	356.5	385.9
75°	139.1	184.1	260.5	313.4	331.1
77.5°	107.7	150.8	223.3	239.0	241.0
80°	80.3	119.5	166.5	168.5	174.4
82.5°	54.9	84.2	107.7	117.5	119.5
85°	35.3	49.0	60.7	62.7	66.6
87.5°	15.7	17.6	21.5	19.6	19.6
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)