

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: P308559

Luminaire Tested: **22FCZ2-44HE-UNV-L82765-RDP-CA08-W2A-U-4500K**

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: P308559
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-L82765-RDP-CA08-W2A-U-4500K
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: 2706.0 lumens
Efficiency: N/A
Efficacy: 71.4 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

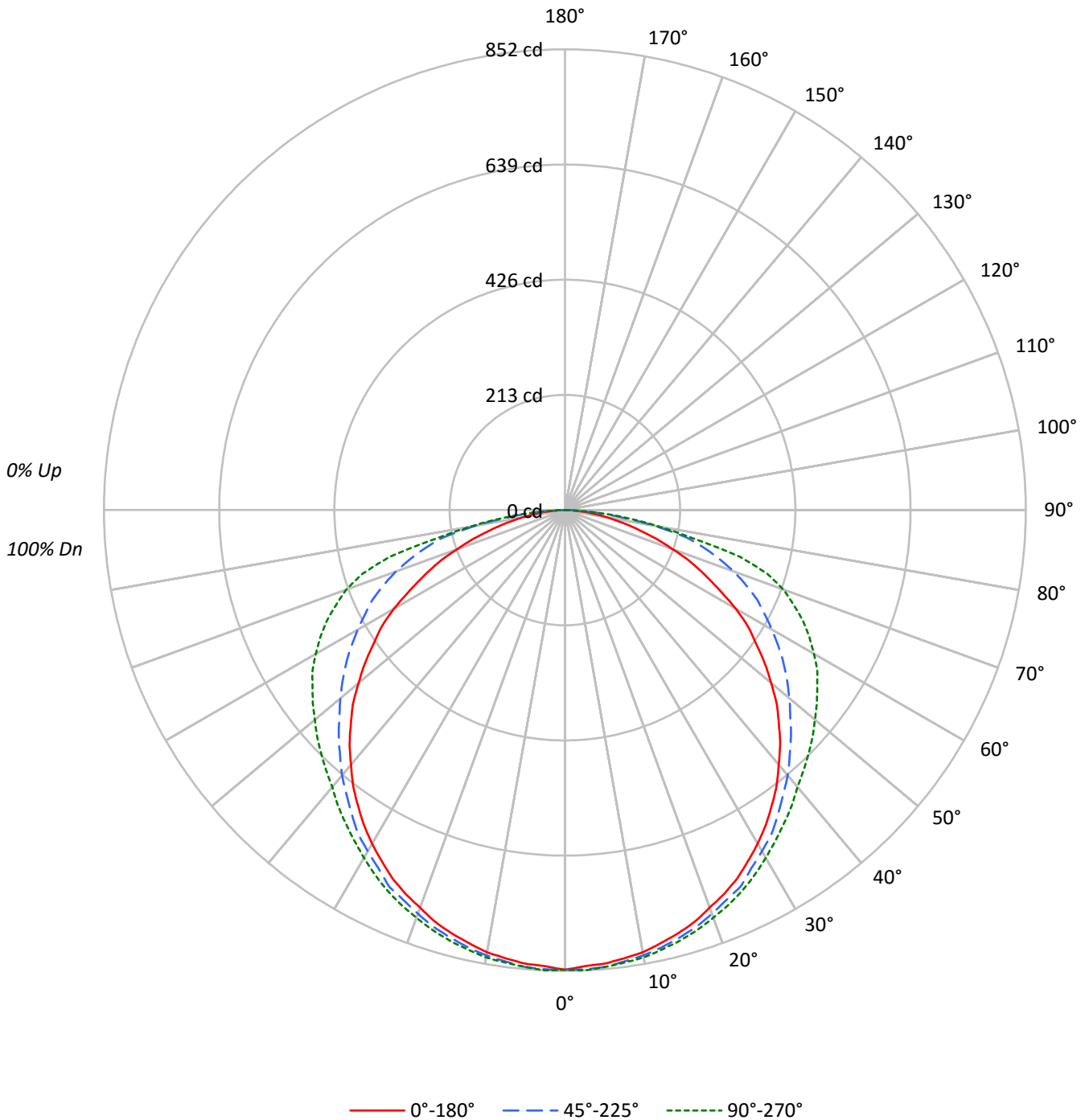
Input Watts (W): 37.9
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	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°	2287	2287	2287
5°	2274	2291	2291
10°	2268	2285	2295
15°	2257	2279	2296
20°	2240	2275	2297
25°	2234	2282	2305
30°	2214	2264	2307
35°	2191	2256	2322
40°	2161	2252	2350
45°	2129	2250	2424
50°	2084	2267	2525
55°	2027	2316	2671
60°	1961	2378	2861
65°	1826	2497	3093
70°	1676	2615	3383
75°	1469	2753	3498
80°	1265	2622	2746
85°	1105	1905	2090



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	80.4	3.0
10°-20°	230.9	8.5
20°-30°	352.2	13.0
30°-40°	430.1	15.9
40°-50°	459.8	17.0
50°-60°	443.8	16.4
60°-70°	382.1	14.1
70°-80°	258.5	9.6
80°-90°	68.2	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°	663.5	24.5
0°-40°	1093.5	40.4
0°-60°	1997.2	73.8
0°-90°	2706.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2706.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	850	850	850	850	850	
5°	842	844	848	848	848	80
15°	810	812	818	822	824	229
25°	752	756	768	772	776	346
35°	667	673	687	701	707	417
45°	559	569	591	621	637	432
55°	432	446	494	543	569	387
65°	287	314	392	454	486	285
75°	141	187	265	318	336	152
85°	36	50	62	64	68	40
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	850.0	850.0	850.0	850.0	850.0
2.5°	844.0	846.0	850.0	850.0	852.0
5°	842.0	844.0	848.0	848.0	848.0
7.5°	836.1	838.1	842.0	844.0	844.0
10°	830.1	832.1	836.1	838.1	840.0
12.5°	820.1	822.1	828.1	832.1	832.1
15°	810.2	812.2	818.2	822.1	824.1
17.5°	798.2	802.2	808.2	812.2	814.2
20°	782.3	786.3	794.3	800.2	802.2
22.5°	768.4	772.4	780.3	786.3	790.3
25°	752.5	756.4	768.4	772.4	776.3
27.5°	732.6	736.5	746.5	754.5	760.4
30°	712.6	716.6	728.6	738.5	742.5
32.5°	690.8	696.7	710.7	718.6	724.6
35°	666.9	672.8	686.8	700.7	706.7
37.5°	643.0	648.9	662.9	680.8	688.8
40°	615.1	623.1	641.0	664.9	668.9
42.5°	589.2	599.2	615.1	643.0	652.9
45°	559.4	569.3	591.2	621.1	637.0
47.5°	531.5	541.5	565.3	601.2	621.1
50°	497.7	511.6	541.5	583.3	603.2
52.5°	465.8	477.8	517.6	563.4	587.2
55°	432.0	445.9	493.7	543.4	569.3
57.5°	402.1	414.1	467.8	523.5	553.4
60°	364.3	380.2	441.9	501.6	531.5
62.5°	324.5	348.4	416.0	477.8	509.6
65°	286.7	314.5	392.2	453.9	485.7
67.5°	252.8	282.7	362.3	428.0	457.8
70°	213.0	250.8	332.4	396.1	430.0
72.5°	177.2	219.0	298.6	362.3	392.2
75°	141.3	187.1	264.8	318.5	336.4
77.5°	109.5	153.3	226.9	242.9	244.8
80°	81.6	121.4	169.2	171.2	177.2
82.5°	55.7	85.6	109.5	119.4	121.4
85°	35.8	49.8	61.7	63.7	67.7
87.5°	15.9	17.9	21.9	19.9	19.9
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)