

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: P308286

Luminaire Tested: **22FCZ2-44HE-UNV-L82765-HRP-CA08-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: P308286
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: 22FCZ2-44HE-UNV-L82765-HRP-CA08-W2A-U-3000K
Description: 2'X2' TROFFER LED MODULE, HIGH EFFICIENCY RND PERF. LENS, 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: 2918.0 lumens
Efficiency: N/A
Efficacy: 79.1 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

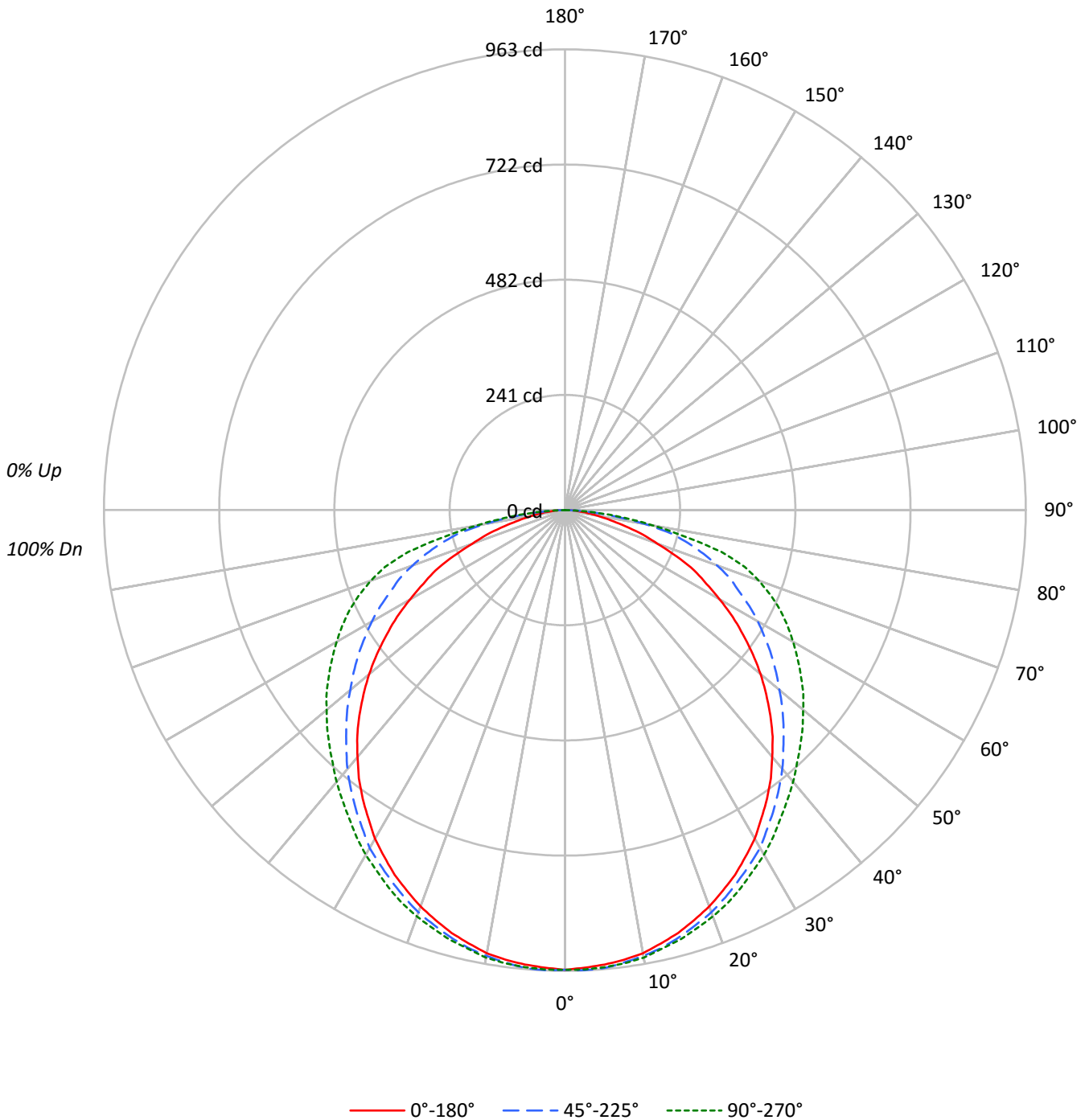
Input Watts (W): 36.9
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	2586	2586	2586
5°	2576	2596	2591
10°	2570	2585	2595
15°	2549	2574	2590
20°	2525	2562	2588
25°	2498	2541	2585
30°	2465	2534	2585
35°	2419	2504	2582
40°	2367	2483	2606
45°	2312	2459	2648
50°	2235	2451	2720
55°	2133	2470	2824
60°	2011	2506	2962
65°	1899	2555	3165
70°	1622	2665	3389
75°	1359	2775	3522
80°	1113	2681	2938
85°	966	1988	2158



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	91.1	3.1
10°-20°	260.5	8.9
20°-30°	394.8	13.5
30°-40°	476.7	16.3
40°-50°	500.9	17.2
50°-60°	471.3	16.2
60°-70°	393.0	13.5
70°-80°	260.4	8.9
80°-90°	69.4	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°	746.3	25.6
0°-40°	1223.1	41.9
0°-60°	2195.3	75.2
0°-90°	2918.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2918.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	961	961	961	961	961	
5°	954	955	961	961	959	91
15°	915	918	924	928	930	258
25°	841	847	856	867	871	387
35°	736	744	762	779	786	460
45°	607	617	646	679	696	468
55°	455	475	526	580	602	407
65°	298	324	401	468	497	290
75°	131	182	267	322	339	142
85°	31	48	64	70	70	36
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	960.9	960.9	960.9	960.9	960.9
2.5°	957.2	959.0	962.7	962.7	960.9
5°	953.5	955.3	960.9	960.9	959.0
7.5°	948.0	949.8	953.5	957.2	955.3
10°	940.6	942.5	946.1	949.8	949.8
12.5°	927.7	929.6	936.9	938.8	938.8
15°	914.8	918.5	924.0	927.7	929.6
17.5°	898.3	902.0	909.3	916.7	916.7
20°	881.7	885.4	894.6	902.0	903.8
22.5°	861.5	867.0	876.2	885.4	889.1
25°	841.2	846.7	855.9	867.0	870.7
27.5°	817.3	822.8	835.7	848.6	850.4
30°	793.4	798.9	815.4	826.5	832.0
32.5°	763.9	771.3	787.8	804.4	809.9
35°	736.3	743.7	762.1	778.6	786.0
37.5°	706.8	714.2	734.5	754.7	763.9
40°	673.7	682.9	706.8	728.9	741.8
42.5°	642.4	651.6	675.6	705.0	717.9
45°	607.4	616.6	646.1	679.2	695.8
47.5°	570.6	581.7	616.6	657.1	673.7
50°	533.8	546.7	585.4	631.4	649.8
52.5°	495.2	511.7	555.9	605.6	627.7
55°	454.7	474.9	526.5	579.8	601.9
57.5°	416.0	434.4	495.2	552.2	576.2
60°	373.7	397.6	465.7	524.6	550.4
62.5°	333.2	358.9	434.4	497.0	524.6
65°	298.2	324.0	401.3	467.5	497.0
67.5°	252.2	287.2	373.7	436.3	465.7
70°	206.2	254.0	338.7	403.1	430.7
72.5°	171.2	217.2	303.7	368.1	393.9
75°	130.7	182.2	266.9	322.1	338.7
77.5°	97.6	150.9	228.3	255.9	257.7
80°	71.8	116.0	173.0	182.2	189.6
82.5°	49.7	81.0	112.3	123.3	127.0
85°	31.3	47.9	64.4	69.9	69.9
87.5°	16.6	18.4	22.1	22.1	22.1
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)