

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: P312728

Luminaire Tested: **22FCZ2-44HE-UNV-L83050-RDP-CP125-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: P312728
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-CP125-W2A-U-4500K
Description: 2'X2' TROFFER LED MODULE, SMOOTH LENS WITH INSERT, 0.125" POLYCARB SHEET
Light Source: (168) 4500K 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: 2758.0 lumens
Efficiency: N/A
Efficacy: 70.7 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

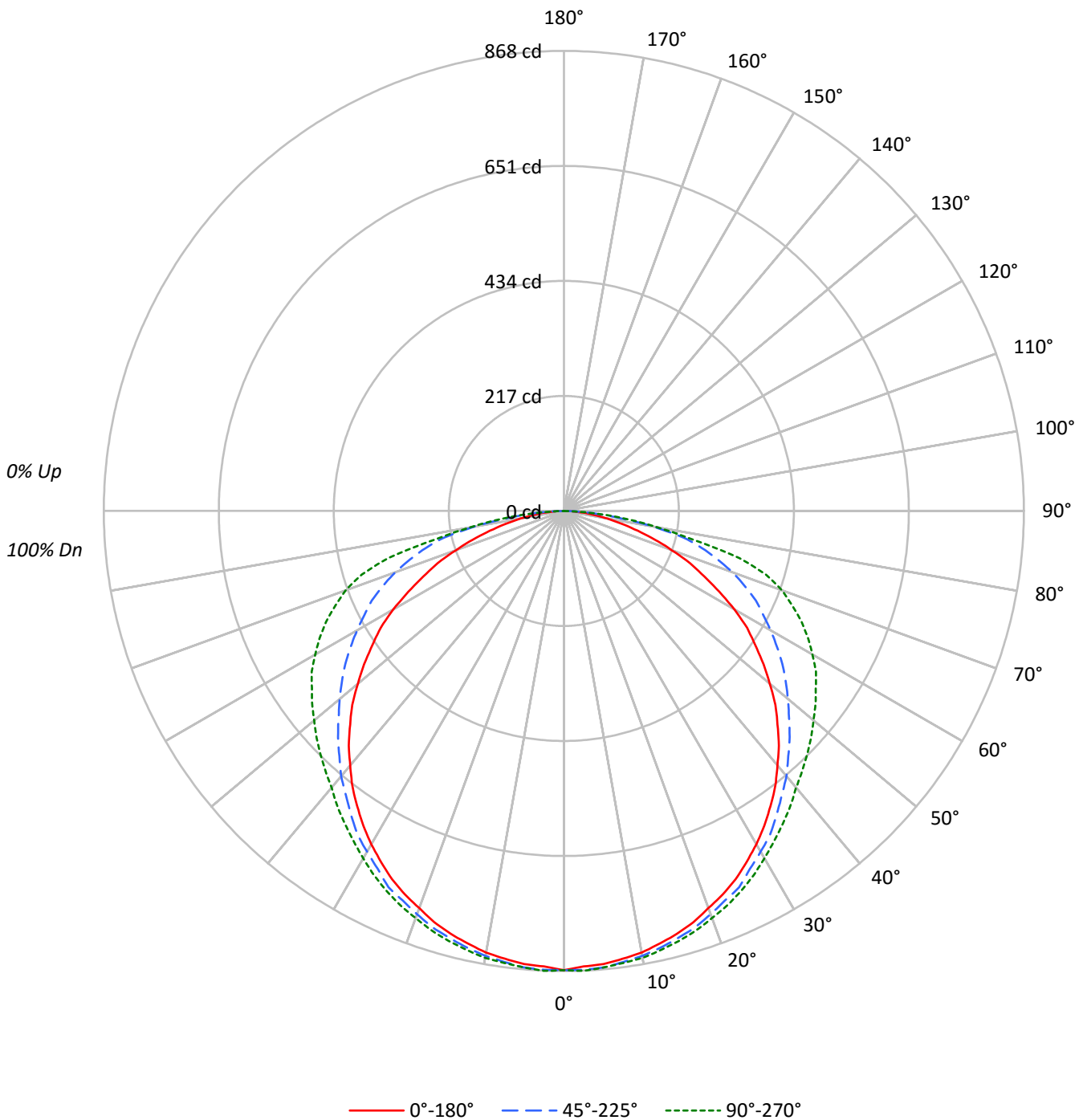
Input Watts (W): 39
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	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°	2331	2331	2331
5°	2318	2335	2335
10°	2312	2328	2340
15°	2301	2323	2340
20°	2283	2318	2341
25°	2277	2325	2350
30°	2257	2307	2352
35°	2233	2300	2366
40°	2202	2295	2395
45°	2170	2293	2471
50°	2123	2310	2574
55°	2066	2361	2723
60°	1998	2424	2915
65°	1861	2545	3152
70°	1708	2666	3448
75°	1498	2805	3565
80°	1289	2673	2799
85°	1127	1942	2130



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	81.9	3.0
10°-20°	235.3	8.5
20°-30°	359.0	13.0
30°-40°	438.3	15.9
40°-50°	468.7	17.0
50°-60°	452.4	16.4
60°-70°	389.4	14.1
70°-80°	263.5	9.6
80°-90°	69.5	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°	676.2	24.5
0°-40°	1114.5	40.4
0°-60°	2035.6	73.8
0°-90°	2758.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2758.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	866	866	866	866	866	
5°	858	860	864	864	864	81
15°	826	828	834	838	840	233
25°	767	771	783	787	791	353
35°	680	686	700	714	720	425
45°	570	580	603	633	649	440
55°	440	454	503	554	580	395
65°	292	321	400	463	495	291
75°	144	191	270	325	343	155
85°	36	51	63	65	69	41
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	866.3	866.3	866.3	866.3	866.3
2.5°	860.2	862.3	866.3	866.3	868.4
5°	858.2	860.2	864.3	864.3	864.3
7.5°	852.1	854.2	858.2	860.2	860.2
10°	846.0	848.1	852.1	854.2	856.2
12.5°	835.9	837.9	844.0	848.1	848.1
15°	825.8	827.8	833.9	837.9	840.0
17.5°	813.6	817.6	823.7	827.8	829.8
20°	797.4	801.4	809.5	815.6	817.6
22.5°	783.2	787.2	795.3	801.4	805.5
25°	766.9	771.0	783.2	787.2	791.3
27.5°	746.6	750.7	760.8	768.9	775.0
30°	726.3	730.4	742.6	752.7	756.8
32.5°	704.0	710.1	724.3	732.4	738.5
35°	679.7	685.8	700.0	714.2	720.3
37.5°	655.3	661.4	675.6	693.9	702.0
40°	626.9	635.0	653.3	677.6	681.7
42.5°	600.6	610.7	626.9	655.3	665.5
45°	570.1	580.3	602.6	633.0	649.2
47.5°	541.7	551.9	576.2	612.7	633.0
50°	507.2	521.4	551.9	594.5	614.8
52.5°	474.8	486.9	527.5	574.2	598.5
55°	440.3	454.5	503.2	553.9	580.3
57.5°	409.8	422.0	476.8	533.6	564.0
60°	371.3	387.5	450.4	511.3	541.7
62.5°	330.7	355.1	424.0	486.9	519.4
65°	292.2	320.6	399.7	462.6	495.0
67.5°	257.7	288.1	369.3	436.2	466.6
70°	217.1	255.6	338.8	403.7	438.2
72.5°	180.6	223.2	304.3	369.3	399.7
75°	144.1	190.7	269.8	324.6	342.9
77.5°	111.6	156.2	231.3	247.5	249.6
80°	83.2	123.8	172.5	174.5	180.6
82.5°	56.8	87.2	111.6	121.7	123.8
85°	36.5	50.7	62.9	64.9	69.0
87.5°	16.2	18.3	22.3	20.3	20.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)