

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: P312553

Luminaire Tested: **22FCZ2-39HE-UNV-L83050-HRP-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: P312553
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: 22FCZ2-39HE-UNV-L83050-HRP-CP125-W2A-U-4500K
Description: 2'X2' TROFFER LED MODULE, HIGH EFFICIENCY RND PERF. LENS, 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: 2958.0 lumens
Efficiency: N/A
Efficacy: 87.0 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

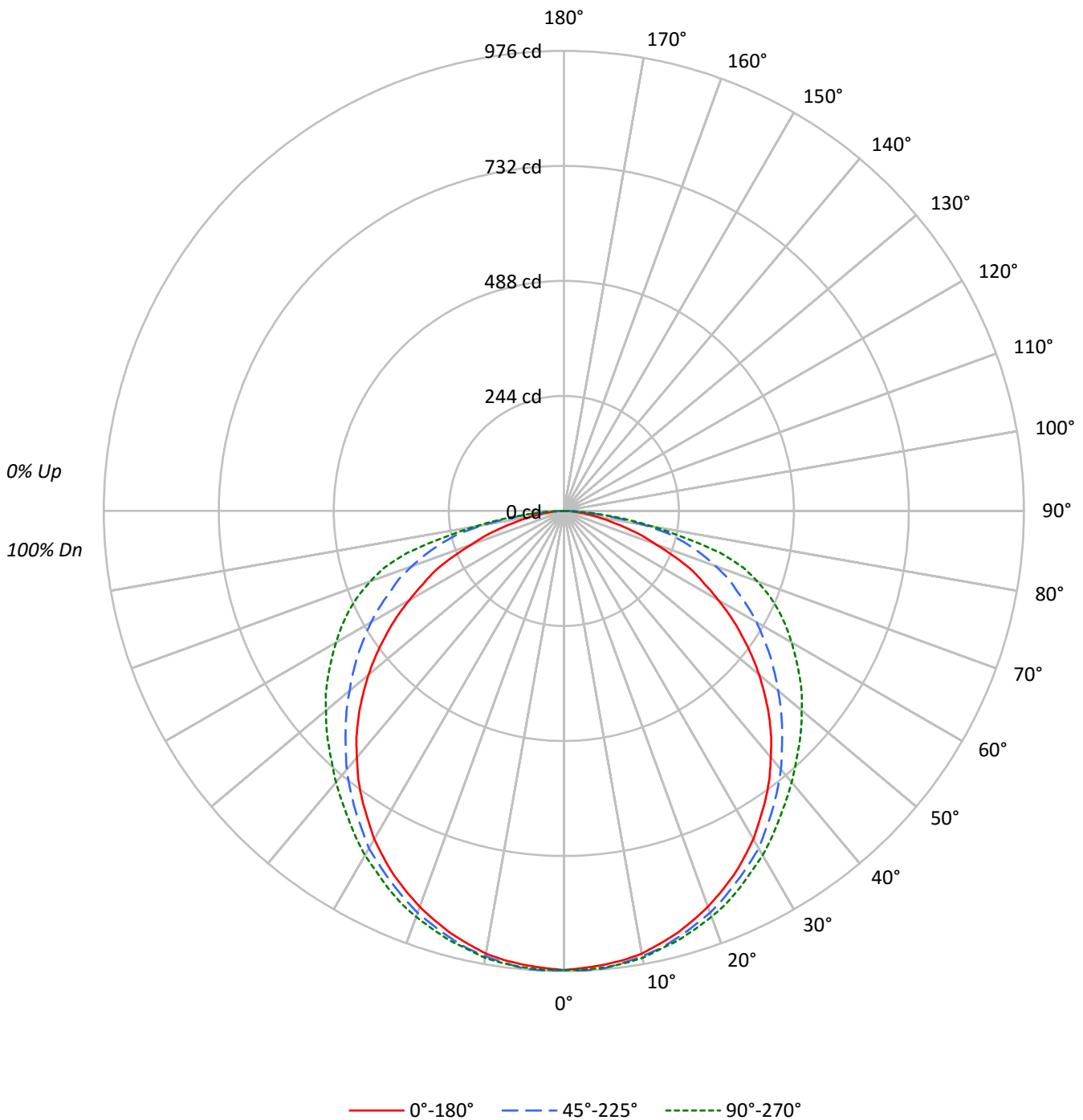
Input Watts (W): 34
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	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°	2621	2621	2621
5°	2611	2631	2626
10°	2605	2621	2631
15°	2584	2610	2625
20°	2560	2597	2624
25°	2532	2576	2621
30°	2499	2568	2621
35°	2452	2538	2618
40°	2399	2517	2642
45°	2343	2493	2684
50°	2265	2484	2758
55°	2162	2504	2863
60°	2039	2541	3003
65°	1925	2590	3208
70°	1644	2701	3435
75°	1378	2813	3569
80°	1128	2718	2978
85°	979	2016	2189



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	92.3	3.1
10°-20°	264.1	8.9
20°-30°	400.2	13.5
30°-40°	483.2	16.3
40°-50°	507.8	17.2
50°-60°	477.8	16.2
60°-70°	398.4	13.5
70°-80°	263.9	8.9
80°-90°	70.3	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°	756.6	25.6
0°-40°	1239.8	41.9
0°-60°	2225.3	75.2
0°-90°	2958.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2958.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	974	974	974	974	974	
5°	967	968	974	974	972	92
15°	927	931	937	940	942	261
25°	853	858	868	879	883	393
35°	746	754	772	789	797	467
45°	616	625	655	688	705	474
55°	461	481	534	588	610	412
65°	302	328	407	474	504	294
75°	132	185	271	326	343	144
85°	32	48	65	71	71	37
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	974.0	974.0	974.0	974.0	974.0
2.5°	970.3	972.2	975.9	975.9	974.0
5°	966.6	968.4	974.0	974.0	972.2
7.5°	961.0	962.8	966.6	970.3	968.4
10°	953.5	955.4	959.1	962.8	962.8
12.5°	940.4	942.3	949.8	951.6	951.6
15°	927.4	931.1	936.7	940.4	942.3
17.5°	910.6	914.3	921.8	929.3	929.3
20°	893.8	897.5	906.9	914.3	916.2
22.5°	873.3	878.9	888.2	897.5	901.3
25°	852.7	858.3	867.7	878.9	882.6
27.5°	828.5	834.1	847.2	860.2	862.1
30°	804.2	809.8	826.6	837.8	843.4
32.5°	774.4	781.8	798.6	815.4	821.0
35°	746.4	753.9	772.5	789.3	796.8
37.5°	716.5	724.0	744.5	765.0	774.4
40°	682.9	692.3	716.5	738.9	752.0
42.5°	651.2	660.6	684.8	714.7	727.7
45°	615.8	625.1	655.0	688.5	705.3
47.5°	578.5	589.6	625.1	666.2	682.9
50°	541.1	554.2	593.4	640.0	658.7
52.5°	501.9	518.7	563.5	613.9	636.3
55°	460.9	481.4	533.7	587.8	610.2
57.5°	421.7	440.4	501.9	559.8	584.0
60°	378.8	403.0	472.1	531.8	557.9
62.5°	337.7	363.9	440.4	503.8	531.8
65°	302.3	328.4	406.8	474.0	503.8
67.5°	255.6	291.1	378.8	442.2	472.1
70°	209.0	257.5	343.3	408.6	436.6
72.5°	173.5	220.2	307.9	373.2	399.3
75°	132.5	184.7	270.6	326.5	343.3
77.5°	98.9	153.0	231.4	259.4	261.2
80°	72.8	117.6	175.4	184.7	192.2
82.5°	50.4	82.1	113.8	125.0	128.8
85°	31.7	48.5	65.3	70.9	70.9
87.5°	16.8	18.7	22.4	22.4	22.4
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)