

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: P312569

Luminaire Tested: **22FCZ2-44HE-UNV-L83050-HRP-CA08-W2A-U-5000K**

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: P312569
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-L83050-HRP-CA08-W2A-U-5000K
Description: 2'X2' TROFFER LED MODULE, HIGH EFFICIENCY RND PERF. LENS, 0.08" ACRYLIC SHEET
Light Source: (168) 5000K 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: 3396.0 lumens
Efficiency: N/A
Efficacy: 87.1 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

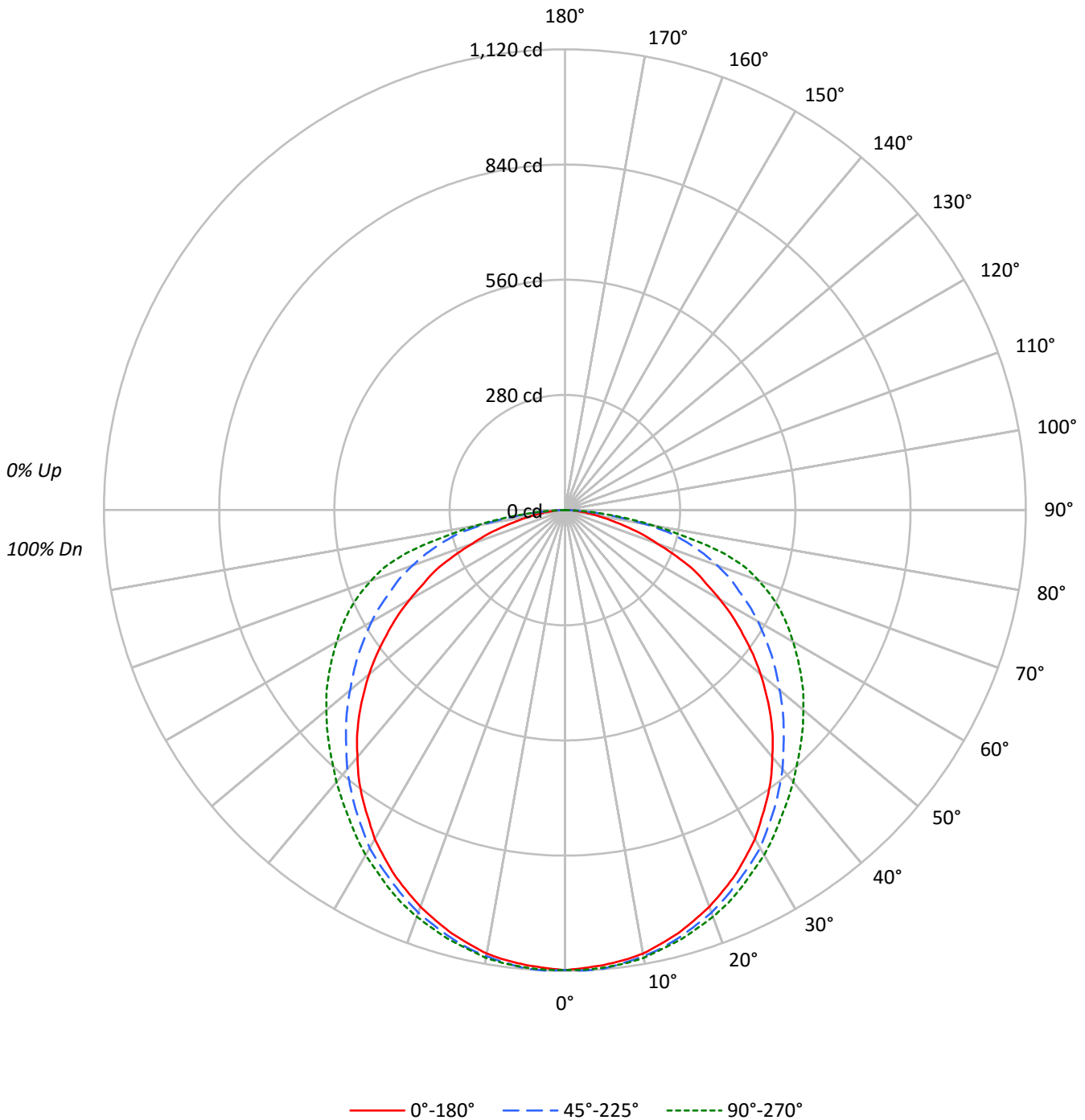
Input Watts (W): 39
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	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°	3009	3009	3009
5°	2998	3021	3015
10°	2991	3009	3020
15°	2966	2996	3014
20°	2938	2981	3012
25°	2907	2958	3009
30°	2869	2949	3009
35°	2815	2914	3005
40°	2754	2890	3033
45°	2690	2861	3082
50°	2601	2852	3166
55°	2482	2875	3286
60°	2341	2917	3447
65°	2209	2974	3683
70°	1888	3102	3944
75°	1581	3229	4099
80°	1294	3121	3420
85°	1124	2316	2513



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	106.0	3.1
10°-20°	303.2	8.9
20°-30°	459.5	13.5
30°-40°	554.8	16.3
40°-50°	583.0	17.2
50°-60°	548.5	16.2
60°-70°	457.3	13.5
70°-80°	303.0	8.9
80°-90°	80.8	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°	868.6	25.6
0°-40°	1423.4	41.9
0°-60°	2554.9	75.2
0°-90°	3396.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3396.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1118	1118	1118	1118	1118	
5°	1110	1112	1118	1118	1116	105
15°	1065	1069	1075	1080	1082	300
25°	979	985	996	1009	1013	451
35°	857	866	887	906	915	536
45°	707	718	752	790	810	545
55°	529	553	613	675	700	473
65°	347	377	467	544	578	338
75°	152	212	311	375	394	165
85°	36	56	75	81	81	42
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1118.3	1118.3	1118.3	1118.3	1118.3
2.5°	1114.0	1116.1	1120.4	1120.4	1118.3
5°	1109.7	1111.8	1118.3	1118.3	1116.1
7.5°	1103.3	1105.4	1109.7	1114.0	1111.8
10°	1094.7	1096.8	1101.1	1105.4	1105.4
12.5°	1079.7	1081.8	1090.4	1092.6	1092.6
15°	1064.7	1069.0	1075.4	1079.7	1081.8
17.5°	1045.4	1049.7	1058.3	1066.9	1066.9
20°	1026.1	1030.4	1041.1	1049.7	1051.9
22.5°	1002.6	1009.0	1019.7	1030.4	1034.7
25°	979.0	985.4	996.2	1009.0	1013.3
27.5°	951.2	957.6	972.6	987.6	989.7
30°	923.3	929.7	949.0	961.9	968.3
32.5°	889.0	897.6	916.9	936.2	942.6
35°	856.9	865.5	886.9	906.2	914.7
37.5°	822.6	831.2	854.8	878.3	889.0
40°	784.1	794.8	822.6	848.3	863.3
42.5°	747.7	758.4	786.2	820.5	835.5
45°	706.9	717.7	751.9	790.5	809.8
47.5°	664.1	677.0	717.7	764.8	784.1
50°	621.3	636.3	681.2	734.8	756.2
52.5°	576.3	595.6	647.0	704.8	730.5
55°	529.1	552.7	612.7	674.8	700.5
57.5°	484.2	505.6	576.3	642.7	670.5
60°	434.9	462.7	542.0	610.5	640.5
62.5°	387.8	417.7	505.6	578.4	610.5
65°	347.0	377.0	467.0	544.1	578.4
67.5°	293.5	334.2	434.9	507.7	542.0
70°	239.9	295.6	394.2	469.2	501.3
72.5°	199.2	252.8	353.5	428.5	458.4
75°	152.1	212.1	310.6	374.9	394.2
77.5°	113.5	175.7	265.6	297.8	299.9
80°	83.5	135.0	201.4	212.1	220.7
82.5°	57.8	94.3	130.7	143.5	147.8
85°	36.4	55.7	75.0	81.4	81.4
87.5°	19.3	21.4	25.7	25.7	25.7
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)