

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: P312217

Luminaire Tested: **14FCZ2-35-UNV-L83050-CA08-W2A-U-4000K**

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: P312217
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1805-783-49)
Test Lab: INNOVATION CENTER(G3)
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: FAIL-SAFE
Catalog Number: 14FCZ2-35-UNV-L83050-CA08-W2A-U-4000K
Description: 1'X4' TROFFER LED MODULE,RIBBED LENS, 0.08" ACRYLIC SHEET
Light Source: (168) 4000K 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: 3537.0 lumens
Efficiency: N/A
Efficacy: 117.1 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.28 / 1.37
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

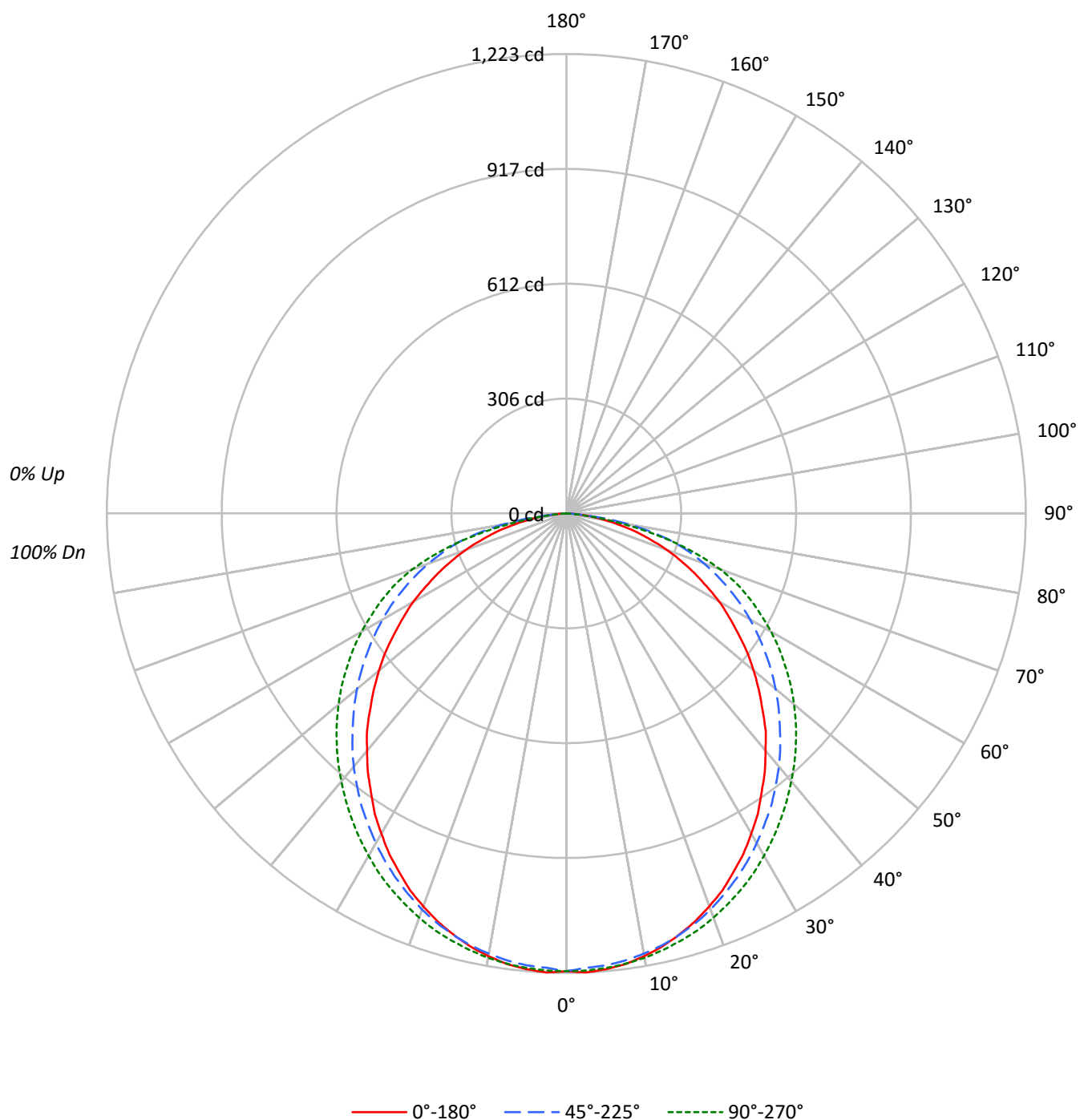
Input Watts (W): 30.2
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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				0
RW	70	50	30	10	70	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		100
1	109	104	99	95	106	101	97	94	97	94	91		93	90	88		83
2	98	90	83	77	96	88	82	76	84	79	74		81	77	73		69
3	89	79	70	64	87	77	69	63	74	67	62		71	66	61		58
4	82	70	61	54	79	68	60	53	66	58	53		63	57	52		49
5	75	62	53	46	73	61	52	46	59	51	45		57	50	45		42
6	69	56	47	40	67	55	46	40	53	45	40		51	44	39		37
7	64	51	42	35	63	50	41	35	48	41	35		47	40	35		32
8	60	46	37	32	58	45	37	31	44	37	31		43	36	31		29
9	56	42	34	28	54	42	34	28	41	33	28		39	33	28		26
10	52	39	31	26	51	39	31	26	37	30	26		37	30	25		24

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	3279	3279	3279
5°	3289	3262	3281
10°	3269	3252	3282
15°	3234	3236	3280
20°	3187	3214	3279
25°	3126	3182	3276
30°	3058	3149	3269
35°	2977	3122	3267
40°	2898	3092	3272
45°	2809	3059	3290
50°	2727	3044	3311
55°	2624	3034	3341
60°	2530	3039	3387
65°	2401	3048	3440
70°	2253	3072	3437
75°	2042	3099	3108
80°	1674	2676	2213
85°	1241	1266	513



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	115.3	3.3
10°-20°	329.4	9.3
20°-30°	496.2	14.0
30°-40°	595.4	16.8
40°-50°	620.6	17.5
50°-60°	574.5	16.2
60°-70°	464.2	13.1
70°-80°	283.0	8.0
80°-90°	58.4	1.7
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°	940.8	26.6
0°-40°	1536.3	43.4
0°-60°	2731.4	77.2
0°-90°	3537.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3537.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1218	1218	1218	1218	1218	
5°	1218	1215	1208	1216	1215	116
15°	1161	1162	1162	1178	1178	327
25°	1053	1059	1072	1099	1103	485
35°	906	920	950	985	994	568
45°	738	760	804	849	864	571
55°	559	588	647	697	712	501
65°	377	414	479	527	540	373
75°	196	240	298	303	299	206
85°	40	60	41	23	17	49
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1218.5	1218.5	1218.5	1218.5	1218.5
2.5°	1223.2	1219.3	1210.6	1219.3	1217.7
5°	1217.7	1214.6	1207.5	1216.1	1214.6
7.5°	1209.8	1206.7	1200.4	1210.6	1209.0
10°	1196.4	1194.8	1190.1	1201.9	1201.2
12.5°	1180.7	1179.9	1177.5	1190.9	1190.1
15°	1160.9	1161.7	1161.7	1177.5	1177.5
17.5°	1138.9	1140.4	1143.6	1160.9	1163.3
20°	1112.8	1116.0	1122.3	1142.0	1145.2
22.5°	1086.0	1088.4	1097.8	1121.5	1124.7
25°	1052.9	1059.2	1071.8	1098.6	1103.4
27.5°	1021.3	1026.9	1044.2	1071.8	1079.7
30°	984.3	992.9	1013.5	1043.4	1052.1
32.5°	948.8	958.2	981.9	1016.6	1024.5
35°	906.2	920.4	950.4	985.1	994.5
37.5°	867.5	881.0	914.9	952.7	963.8
40°	825.0	841.5	880.2	920.4	931.4
42.5°	785.5	801.3	843.1	884.1	899.1
45°	738.2	760.3	803.7	848.6	864.4
47.5°	694.8	716.9	766.6	814.7	828.9
50°	651.4	675.1	727.2	776.8	791.0
52.5°	606.5	631.7	687.7	737.4	754.0
55°	559.2	588.4	646.7	697.2	712.2
57.5°	514.2	544.2	606.5	657.8	672.7
60°	470.1	500.8	564.7	613.6	629.4
62.5°	421.2	457.4	523.7	571.8	583.6
65°	377.0	414.1	478.7	526.8	540.2
67.5°	330.5	370.7	435.4	479.5	492.1
70°	286.3	328.1	390.4	431.4	436.9
72.5°	239.0	281.6	344.7	370.7	370.7
75°	196.4	239.8	298.1	302.9	298.9
77.5°	149.8	198.0	235.8	226.4	216.9
80°	108.0	155.4	172.7	155.4	142.8
82.5°	72.6	112.8	104.1	82.8	73.3
85°	40.2	59.9	41.0	22.9	16.6
87.5°	15.0	13.4	3.9	3.9	3.9
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)