

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: P312240

Luminaire Tested: **14FCZ2-39-UNV-L83050-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: P312240
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: 14FCZ2-39-UNV-L83050-CA08-W2A-U-3000K
Description: 1'X4' TROFFER LED MODULE,RIBBED 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: 3513.0 lumens
Efficiency: N/A
Efficacy: 105.8 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

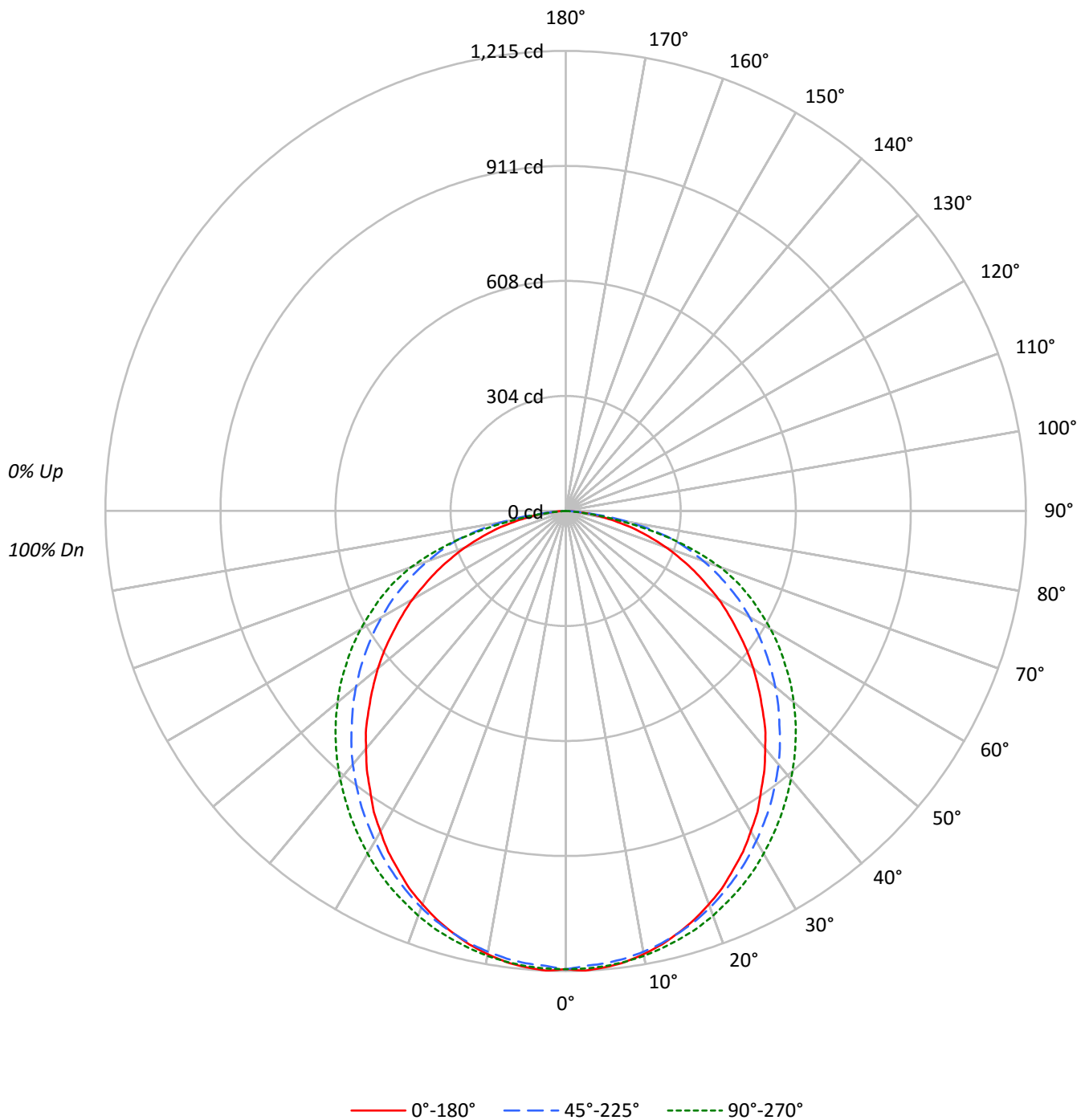
Input Watts (W): 33.2
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	3257	3257	3257
5°	3267	3240	3259
10°	3247	3230	3260
15°	3212	3214	3258
20°	3165	3192	3257
25°	3105	3161	3254
30°	3038	3128	3247
35°	2957	3101	3245
40°	2878	3071	3250
45°	2790	3038	3267
50°	2709	3023	3289
55°	2606	3013	3318
60°	2513	3019	3364
65°	2384	3028	3417
70°	2237	3050	3415
75°	2027	3079	3087
80°	1663	2658	2197
85°	1232	1257	506



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	114.5	3.3
10°-20°	327.1	9.3
20°-30°	492.8	14.0
30°-40°	591.4	16.8
40°-50°	616.4	17.5
50°-60°	570.6	16.2
60°-70°	461.0	13.1
70°-80°	281.1	8.0
80°-90°	58.0	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°	934.5	26.6
0°-40°	1525.8	43.4
0°-60°	2712.8	77.2
0°-90°	3513.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3513.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1210	1210	1210	1210	1210	
5°	1210	1206	1199	1208	1206	115
15°	1153	1154	1154	1170	1170	325
25°	1046	1052	1064	1091	1096	482
35°	900	914	944	978	988	564
45°	733	755	798	843	858	567
55°	555	584	642	692	707	498
65°	374	411	476	523	537	370
75°	195	238	296	301	297	205
85°	40	60	41	23	16	49
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1210.2	1210.2	1210.2	1210.2	1210.2
2.5°	1214.9	1211.0	1202.4	1211.0	1209.5
5°	1209.5	1206.3	1199.3	1207.9	1206.3
7.5°	1201.6	1198.5	1192.2	1202.4	1200.8
10°	1188.3	1186.7	1182.0	1193.8	1193.0
12.5°	1172.6	1171.9	1169.5	1182.8	1182.0
15°	1153.1	1153.8	1153.8	1169.5	1169.5
17.5°	1131.1	1132.7	1135.8	1153.1	1155.4
20°	1105.3	1108.4	1114.7	1134.3	1137.4
22.5°	1078.6	1081.0	1090.4	1113.9	1117.0
25°	1045.7	1052.0	1064.5	1091.2	1095.9
27.5°	1014.4	1019.9	1037.1	1064.5	1072.4
30°	977.6	986.2	1006.6	1036.3	1045.0
32.5°	942.3	951.7	975.2	1009.7	1017.5
35°	900.0	914.1	943.9	978.4	987.8
37.5°	861.7	875.0	908.7	946.3	957.2
40°	819.4	835.8	874.2	914.1	925.1
42.5°	780.2	795.9	837.4	878.1	893.0
45°	733.2	755.1	798.2	842.9	858.5
47.5°	690.1	712.0	761.4	809.2	823.3
50°	647.0	670.5	722.2	771.6	785.7
52.5°	602.4	627.4	683.1	732.4	748.9
55°	555.4	584.4	642.3	692.5	707.3
57.5°	510.7	540.5	602.4	653.3	668.2
60°	466.9	497.4	560.9	609.4	625.1
62.5°	418.3	454.3	520.1	567.9	579.7
65°	374.4	411.2	475.5	523.3	536.6
67.5°	328.2	368.2	432.4	476.3	488.8
70°	284.3	325.9	387.7	428.5	434.0
72.5°	237.3	279.6	342.3	368.2	368.2
75°	195.0	238.1	296.1	300.8	296.9
77.5°	148.8	196.6	234.2	224.8	215.4
80°	107.3	154.3	171.5	154.3	141.8
82.5°	72.1	112.0	103.4	82.2	72.8
85°	39.9	59.5	40.7	22.7	16.4
87.5°	14.9	13.3	3.9	3.9	3.9
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)