

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: P312222

Luminaire Tested: **14FCZ2-35-UNV-L83050-CA125-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: P312222
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-CA125-W2A-U-4000K
Description: 1'X4' TROFFER LED MODULE,RIBBED LENS, 0.125" 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: 3524.0 lumens
Efficiency: N/A
Efficacy: 116.7 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

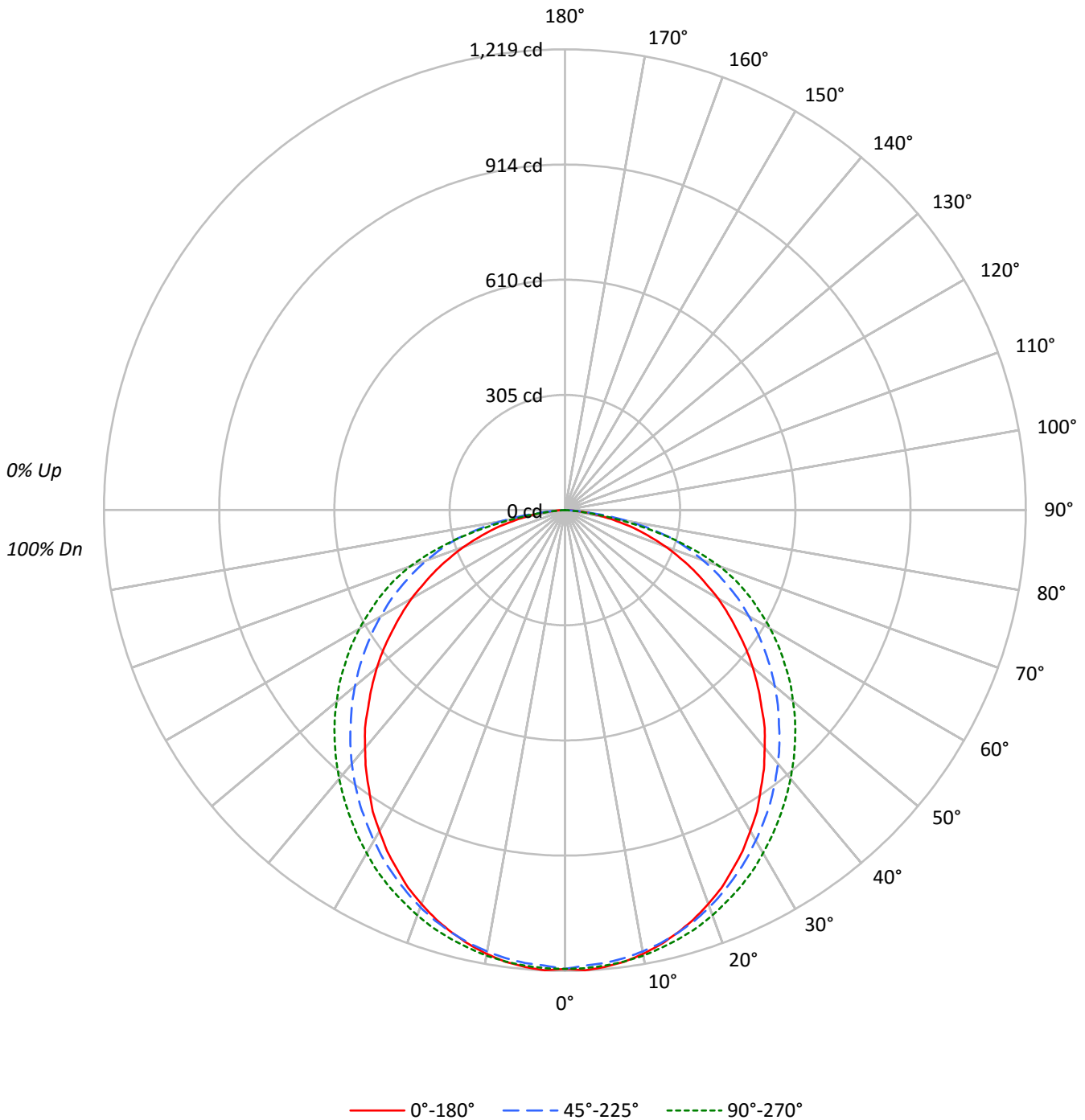
Input Watts (W): 30.2
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	109	104	99	95	106	101	97	94	97	94	91	93	90	88	90	87	85	83
2	98	90	83	77	96	88	82	76	84	79	74	81	77	73	78	74	71	69
3	89	79	70	64	87	77	69	63	74	67	62	71	66	61	69	64	60	58
4	82	70	61	54	79	68	60	53	66	58	53	63	57	52	61	56	51	49
5	75	62	53	46	73	61	52	46	59	51	45	57	50	45	55	49	44	42
6	69	56	47	40	67	55	46	40	53	45	40	51	44	39	50	44	39	37
7	64	51	42	35	63	50	41	35	48	41	35	47	40	35	45	39	34	32
8	60	46	37	32	58	45	37	31	44	37	31	43	36	31	42	35	31	29
9	56	42	34	28	54	42	34	28	41	33	28	39	33	28	38	32	28	26
10	52	39	31	26	51	39	31	26	37	30	26	37	30	25	36	30	25	24

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	3267	3267	3267
5°	3277	3250	3269
10°	3257	3240	3270
15°	3222	3225	3268
20°	3175	3202	3267
25°	3115	3171	3264
30°	3047	3137	3257
35°	2966	3111	3255
40°	2887	3080	3260
45°	2799	3047	3277
50°	2717	3033	3299
55°	2614	3023	3329
60°	2520	3028	3375
65°	2392	3037	3428
70°	2244	3061	3425
75°	2035	3088	3096
80°	1669	2667	2204
85°	1238	1263	509



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	114.9	3.3
10°-20°	328.2	9.3
20°-30°	494.4	14.0
30°-40°	593.2	16.8
40°-50°	618.3	17.5
50°-60°	572.4	16.2
60°-70°	462.5	13.1
70°-80°	282.0	8.0
80°-90°	58.2	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°	937.4	26.6
0°-40°	1530.6	43.4
0°-60°	2721.3	77.2
0°-90°	3524.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3524.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1214	1214	1214	1214	1214	
5°	1213	1210	1203	1212	1210	115
15°	1157	1158	1158	1173	1173	326
25°	1049	1055	1068	1095	1099	483
35°	903	917	947	981	991	566
45°	736	758	801	846	861	569
55°	557	586	644	695	710	499
65°	376	412	477	525	538	371
75°	196	239	297	302	298	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°	1214.0	1214.0	1214.0	1214.0	1214.0
2.5°	1218.7	1214.8	1206.2	1214.8	1213.2
5°	1213.2	1210.1	1203.0	1211.7	1210.1
7.5°	1205.4	1202.2	1196.0	1206.2	1204.6
10°	1192.0	1190.5	1185.7	1197.5	1196.7
12.5°	1176.3	1175.5	1173.2	1186.5	1185.7
15°	1156.7	1157.5	1157.5	1173.2	1173.2
17.5°	1134.7	1136.2	1139.4	1156.7	1159.0
20°	1108.7	1111.9	1118.2	1137.8	1141.0
22.5°	1082.0	1084.4	1093.8	1117.4	1120.5
25°	1049.0	1055.3	1067.9	1094.6	1099.3
27.5°	1017.6	1023.1	1040.4	1067.9	1075.7
30°	980.7	989.3	1009.7	1039.6	1048.2
32.5°	945.3	954.7	978.3	1012.9	1020.7
35°	902.9	917.0	946.9	981.4	990.9
37.5°	864.4	877.7	911.5	949.2	960.2
40°	821.9	838.4	876.9	917.0	928.0
42.5°	782.6	798.4	840.0	880.9	895.8
45°	735.5	757.5	800.7	845.5	861.2
47.5°	692.3	714.3	763.8	811.7	825.9
50°	649.1	672.6	724.5	774.0	788.1
52.5°	604.3	629.4	685.2	734.7	751.2
55°	557.1	586.2	644.3	694.6	709.6
57.5°	512.3	542.2	604.3	655.3	670.3
60°	468.3	499.0	562.6	611.3	627.1
62.5°	419.6	455.8	521.8	569.7	581.5
65°	375.6	412.5	477.0	524.9	538.3
67.5°	329.2	369.3	433.8	477.8	490.3
70°	285.2	326.9	389.0	429.8	435.3
72.5°	238.1	280.5	343.4	369.3	369.3
75°	195.7	238.9	297.0	301.7	297.8
77.5°	149.3	197.2	234.9	225.5	216.1
80°	107.7	154.8	172.1	154.8	142.2
82.5°	72.3	112.4	103.7	82.5	73.1
85°	40.1	59.7	40.9	22.8	16.5
87.5°	14.9	13.4	3.9	3.9	3.9
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)