

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: P312369

Luminaire Tested: **14FCZ2-35-UNV-L83050-S-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: P312369
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1805-783-40)
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-S-CA08-W2A-U-5000K
Description: 1'X4' TROFFER LED MODULE,SMOOTH 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: 3608.0 lumens
Efficiency: N/A
Efficacy: 116.8 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.26 / 1.36
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

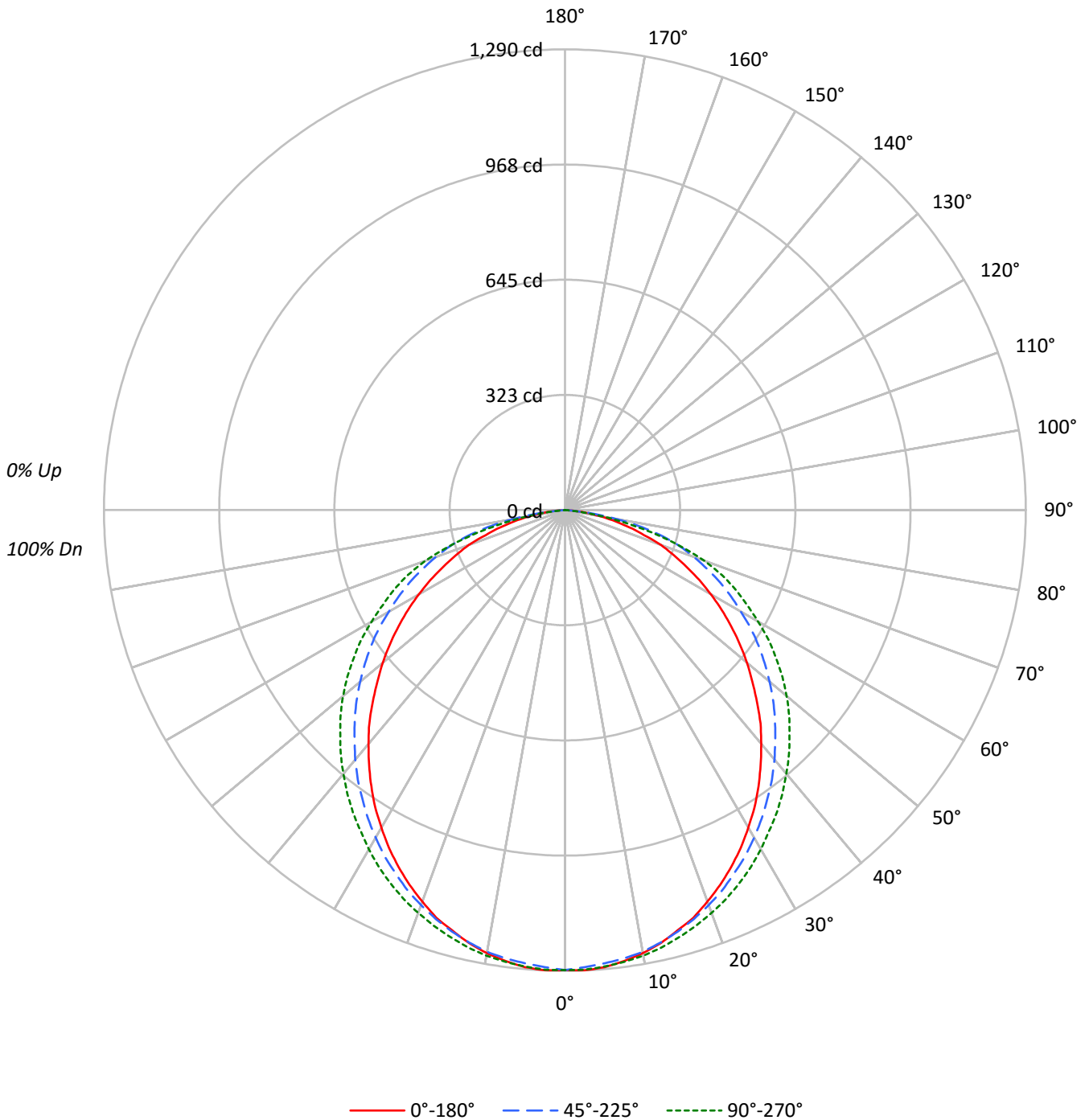
Input Watts (W): 30.9
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	100	96	106	102	98	94	97	94	91	94	91	89	90	88	86	84
2	99	90	84	78	96	89	82	77	85	80	75	82	77	73	79	75	72	70
3	90	79	71	65	87	78	70	64	75	68	63	72	66	62	69	65	61	58
4	82	70	61	55	80	69	61	54	66	59	53	64	58	53	62	56	52	50
5	76	63	54	47	74	62	53	47	59	52	46	57	51	46	56	50	45	43
6	70	56	47	41	68	55	47	41	54	46	40	52	45	40	50	44	40	38
7	65	51	42	36	63	50	42	36	49	41	36	47	41	35	46	40	35	33
8	60	47	38	32	59	46	38	32	45	37	32	43	37	32	42	36	32	30
9	56	43	35	29	55	42	34	29	41	34	29	40	33	29	39	33	28	27
10	53	40	32	26	52	39	31	26	38	31	26	37	31	26	36	30	26	24

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	3466	3466	3466
5°	3469	3441	3465
10°	3441	3431	3461
15°	3394	3404	3449
20°	3340	3371	3437
25°	3272	3330	3426
30°	3191	3291	3407
35°	3103	3244	3397
40°	3004	3205	3387
45°	2893	3166	3384
50°	2786	3131	3393
55°	2669	3105	3382
60°	2542	3062	3360
65°	2392	3053	3360
70°	2252	3026	3265
75°	1953	2957	2790
80°	1581	2383	1858
85°	1050	827	553



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	121.6	3.4
10°-20°	346.1	9.6
20°-30°	519.1	14.4
30°-40°	619.3	17.2
40°-50°	640.2	17.7
50°-60°	584.5	16.2
60°-70°	460.0	12.7
70°-80°	267.8	7.4
80°-90°	49.3	1.4
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°	986.9	27.4
0°-40°	1606.2	44.5
0°-60°	2830.9	78.5
0°-90°	3608.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3608.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1288	1288	1288	1288	1288	
5°	1284	1281	1274	1284	1283	122
15°	1218	1220	1222	1238	1238	344
25°	1102	1107	1122	1148	1154	507
35°	944	957	988	1025	1034	590
45°	760	785	832	878	889	587
55°	569	599	662	710	721	509
65°	376	415	479	517	528	373
75°	188	233	284	279	268	200
85°	34	48	27	22	18	44
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1288.0	1288.0	1288.0	1288.0	1288.0
2.5°	1289.8	1286.2	1280.8	1289.8	1288.0
5°	1284.4	1280.8	1273.7	1284.4	1282.6
7.5°	1273.7	1270.1	1266.5	1277.3	1275.5
10°	1259.4	1257.6	1255.8	1268.3	1266.5
12.5°	1241.5	1241.5	1239.7	1254.0	1254.0
15°	1218.2	1220.0	1221.8	1237.9	1237.9
17.5°	1196.8	1195.0	1200.3	1218.2	1220.0
20°	1166.4	1169.9	1177.1	1198.6	1200.3
22.5°	1135.9	1139.5	1152.0	1173.5	1178.9
25°	1102.0	1107.3	1121.6	1148.5	1153.8
27.5°	1066.2	1073.3	1093.0	1121.6	1127.0
30°	1026.8	1037.6	1059.0	1091.2	1096.6
32.5°	987.5	998.2	1025.0	1057.2	1064.4
35°	944.5	957.1	987.5	1025.0	1034.0
37.5°	899.8	915.9	951.7	989.3	1000.0
40°	855.1	873.0	912.3	951.7	964.2
42.5°	810.4	828.3	871.2	915.9	928.4
45°	760.3	785.3	831.8	878.3	889.1
47.5°	712.0	738.8	790.7	837.2	851.5
50°	665.5	692.3	747.8	796.1	810.4
52.5°	617.2	645.8	704.8	754.9	767.4
55°	568.9	599.3	661.9	710.2	720.9
57.5°	520.6	552.8	617.2	663.7	676.2
60°	472.3	506.3	568.9	615.4	624.3
62.5°	424.0	459.7	524.1	565.3	574.2
65°	375.7	415.0	479.4	517.0	527.7
67.5°	329.2	368.5	431.1	466.9	475.8
70°	286.2	322.0	384.6	411.4	415.0
72.5°	232.6	277.3	338.1	352.4	343.5
75°	187.8	232.6	284.4	279.1	268.3
77.5°	143.1	187.8	221.8	203.9	189.6
80°	102.0	146.7	153.8	127.0	119.9
82.5°	66.2	102.0	85.9	66.2	53.7
85°	34.0	48.3	26.8	21.5	17.9
87.5°	10.7	7.2	3.6	3.6	1.8
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)