

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: P312367

Luminaire Tested: **14FCZ2-35-UNV-L83050-S-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: P312367
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-4000K
Description: 1'X4' TROFFER LED MODULE,SMOOTH 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: 3574.0 lumens
Efficiency: N/A
Efficacy: 118.3 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

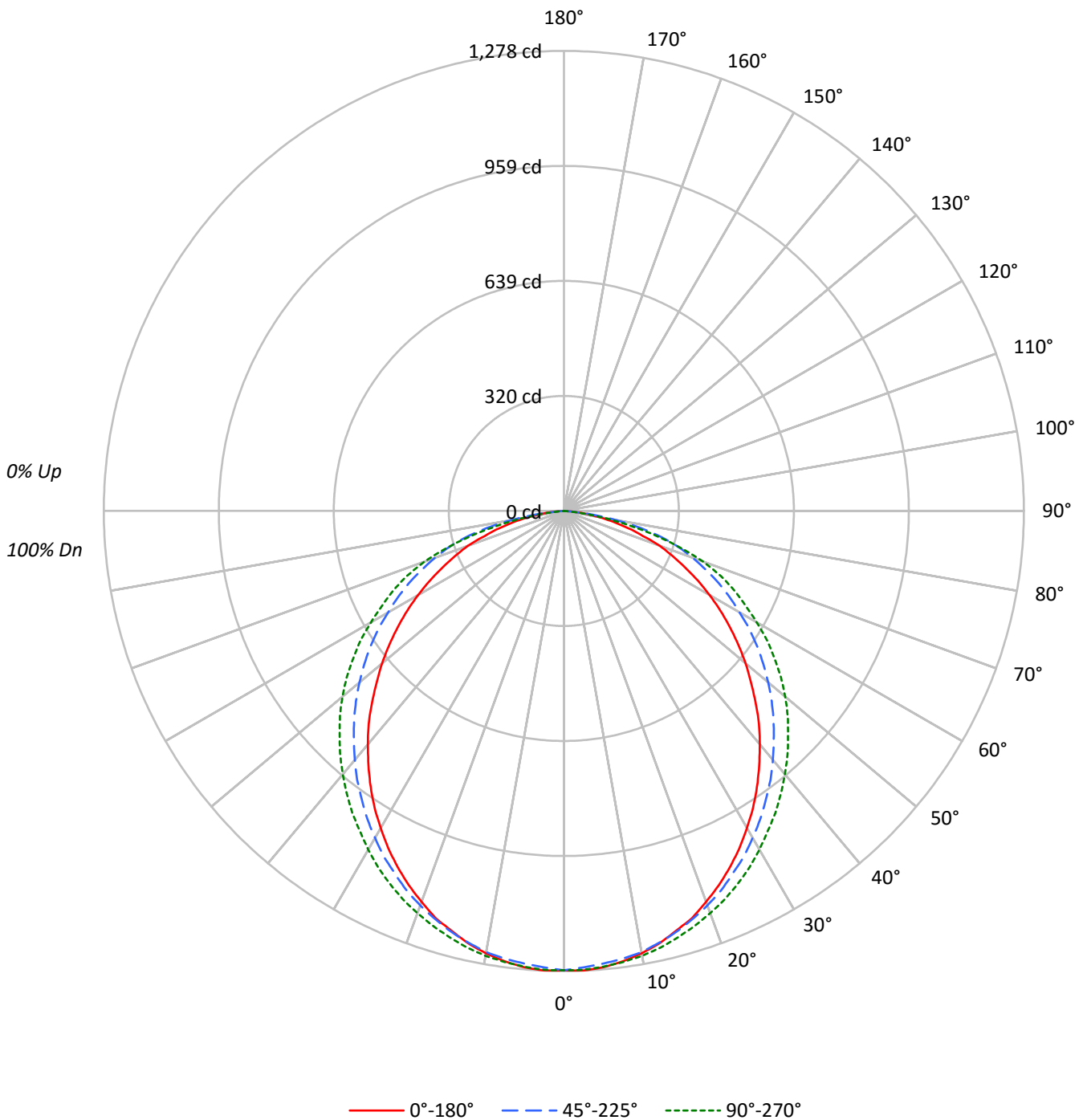
Input Watts (W): 30.2
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	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°	3433	3433	3433
5°	3437	3408	3432
10°	3409	3399	3428
15°	3362	3372	3416
20°	3309	3339	3405
25°	3241	3299	3394
30°	3160	3260	3375
35°	3074	3213	3365
40°	2975	3175	3355
45°	2866	3136	3352
50°	2760	3101	3360
55°	2644	3076	3350
60°	2518	3033	3328
65°	2369	3024	3328
70°	2231	2998	3234
75°	1935	2930	2764
80°	1565	2362	1839
85°	1041	821	546



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	120.5	3.4
10°-20°	342.8	9.6
20°-30°	514.3	14.4
30°-40°	613.5	17.2
40°-50°	634.2	17.7
50°-60°	579.0	16.2
60°-70°	455.7	12.7
70°-80°	265.3	7.4
80°-90°	48.9	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°	977.6	27.4
0°-40°	1591.0	44.5
0°-60°	2804.2	78.5
0°-90°	3574.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3574.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1276	1276	1276	1276	1276	
5°	1272	1269	1262	1272	1270	121
15°	1207	1208	1210	1226	1226	341
25°	1092	1097	1111	1138	1143	503
35°	936	948	978	1015	1024	585
45°	753	778	824	870	881	582
55°	564	594	656	704	714	504
65°	372	411	475	512	523	370
75°	186	230	282	276	266	198
85°	34	48	27	21	18	44
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1275.9	1275.9	1275.9	1275.9	1275.9
2.5°	1277.6	1274.1	1268.8	1277.6	1275.9
5°	1272.3	1268.8	1261.7	1272.3	1270.5
7.5°	1261.7	1258.1	1254.6	1265.2	1263.5
10°	1247.5	1245.7	1244.0	1256.4	1254.6
12.5°	1229.8	1229.8	1228.0	1242.2	1242.2
15°	1206.7	1208.5	1210.3	1226.2	1226.2
17.5°	1185.5	1183.7	1189.0	1206.7	1208.5
20°	1155.4	1158.9	1166.0	1187.3	1189.0
22.5°	1125.2	1128.8	1141.2	1162.4	1167.8
25°	1091.6	1096.9	1111.1	1137.6	1143.0
27.5°	1056.1	1063.2	1082.7	1111.1	1116.4
30°	1017.1	1027.8	1049.0	1080.9	1086.3
32.5°	978.2	988.8	1015.4	1047.3	1054.4
35°	935.6	948.0	978.2	1015.4	1024.2
37.5°	891.3	907.3	942.7	979.9	990.6
40°	847.0	864.7	903.7	942.7	955.1
42.5°	802.7	820.4	863.0	907.3	919.7
45°	753.1	777.9	824.0	870.1	880.7
47.5°	705.3	731.8	783.2	829.3	843.5
50°	659.2	685.8	740.7	788.6	802.7
52.5°	611.3	639.7	698.2	747.8	760.2
55°	563.5	593.6	655.6	703.5	714.1
57.5°	515.7	547.6	611.3	657.4	669.8
60°	467.8	501.5	563.5	609.6	618.4
62.5°	420.0	455.4	519.2	560.0	568.8
65°	372.1	411.1	474.9	512.1	522.7
67.5°	326.1	365.0	427.1	462.5	471.4
70°	283.5	319.0	381.0	407.6	411.1
72.5°	230.4	274.7	334.9	349.1	340.2
75°	186.1	230.4	281.8	276.4	265.8
77.5°	141.8	186.1	219.7	202.0	187.8
80°	101.0	145.3	152.4	125.8	118.7
82.5°	65.6	101.0	85.1	65.6	53.2
85°	33.7	47.8	26.6	21.3	17.7
87.5°	10.6	7.1	3.5	3.5	1.8
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)