

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: P312378

Luminaire Tested: **14FCZ2-35-UNV-L83050-S-CP125-W2A-U-4500K**

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: P312378
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-CP125-W2A-U-4500K
Description: 1'X4' TROFFER LED MODULE, SMOOTH LENS, 0.125" POLYCARB SHEET
Light Source: (168) 4500K 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: 3525.0 lumens
Efficiency: N/A
Efficacy: 114.1 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

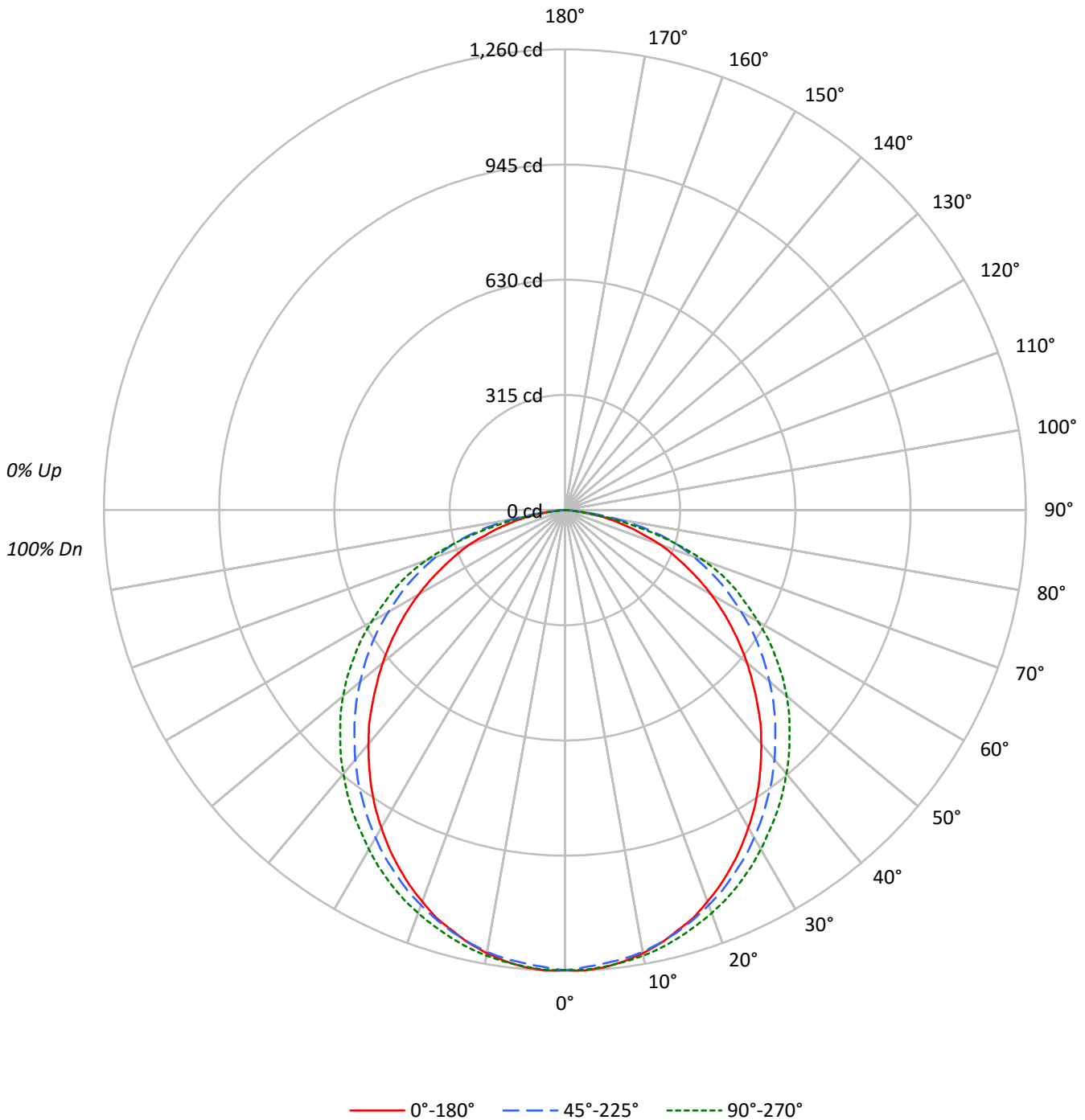
Input Watts (W): 30.9
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	3386	3386	3386
5°	3390	3361	3385
10°	3362	3352	3381
15°	3316	3326	3369
20°	3263	3293	3358
25°	3197	3254	3347
30°	3117	3215	3329
35°	3031	3169	3319
40°	2935	3131	3309
45°	2827	3093	3306
50°	2722	3059	3314
55°	2608	3034	3304
60°	2483	2991	3283
65°	2337	2982	3283
70°	2200	2957	3190
75°	1908	2889	2726
80°	1543	2329	1815
85°	1025	809	540



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	118.8	3.4
10°-20°	338.1	9.6
20°-30°	507.2	14.4
30°-40°	605.0	17.2
40°-50°	625.5	17.7
50°-60°	571.1	16.2
60°-70°	449.4	12.7
70°-80°	261.6	7.4
80°-90°	48.2	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°	964.2	27.4
0°-40°	1569.2	44.5
0°-60°	2765.8	78.5
0°-90°	3525.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3525.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1258	1258	1258	1258	1258	
5°	1255	1251	1244	1255	1253	119
15°	1190	1192	1194	1209	1209	336
25°	1077	1082	1096	1122	1127	496
35°	923	935	965	1002	1010	577
45°	743	767	813	858	869	574
55°	556	586	647	694	704	497
65°	367	406	468	505	516	364
75°	184	227	278	273	262	195
85°	33	47	26	21	18	43
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1258.4	1258.4	1258.4	1258.4	1258.4
2.5°	1260.1	1256.6	1251.4	1260.1	1258.4
5°	1254.9	1251.4	1244.4	1254.9	1253.1
7.5°	1244.4	1240.9	1237.4	1247.9	1246.1
10°	1230.4	1228.7	1226.9	1239.1	1237.4
12.5°	1212.9	1212.9	1211.2	1225.2	1225.2
15°	1190.2	1192.0	1193.7	1209.4	1209.4
17.5°	1169.2	1167.5	1172.7	1190.2	1192.0
20°	1139.5	1143.0	1150.0	1171.0	1172.7
22.5°	1109.8	1113.3	1125.5	1146.5	1151.8
25°	1076.6	1081.8	1095.8	1122.0	1127.3
27.5°	1041.6	1048.6	1067.9	1095.8	1101.1
30°	1003.2	1013.7	1034.7	1066.1	1071.4
32.5°	964.7	975.2	1001.5	1032.9	1039.9
35°	922.8	935.0	964.7	1001.5	1010.2
37.5°	879.1	894.8	929.8	966.5	977.0
40°	835.4	852.9	891.3	929.8	942.0
42.5°	791.7	809.2	851.1	894.8	907.1
45°	742.8	767.3	812.7	858.1	868.6
47.5°	695.6	721.8	772.5	817.9	831.9
50°	650.2	676.4	730.6	777.7	791.7
52.5°	603.0	630.9	688.6	737.5	749.8
55°	555.8	585.5	646.7	693.8	704.3
57.5°	508.6	540.0	603.0	648.4	660.6
60°	461.4	494.6	555.8	601.2	610.0
62.5°	414.2	449.2	512.1	552.3	561.0
65°	367.0	405.5	468.4	505.1	515.6
67.5°	321.6	360.0	421.2	456.2	464.9
70°	279.6	314.6	375.8	402.0	405.5
72.5°	227.2	270.9	330.3	344.3	335.6
75°	183.5	227.2	277.9	272.6	262.2
77.5°	139.8	183.5	216.7	199.2	185.3
80°	99.6	143.3	150.3	124.1	117.1
82.5°	64.7	99.6	83.9	64.7	52.4
85°	33.2	47.2	26.2	21.0	17.5
87.5°	10.5	7.0	3.5	3.5	1.7
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)