

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: P312366

Luminaire Tested: **14FCZ2-35-UNV-L83050-S-CA08-W2A-U-3500K**

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: P312366
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-3500K
Description: 1'X4' TROFFER LED MODULE,SMOOTH LENS, 0.08" ACRYLIC SHEET
Light Source: (168) 3500K 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: 3404.0 lumens
Efficiency: N/A
Efficacy: 115.4 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

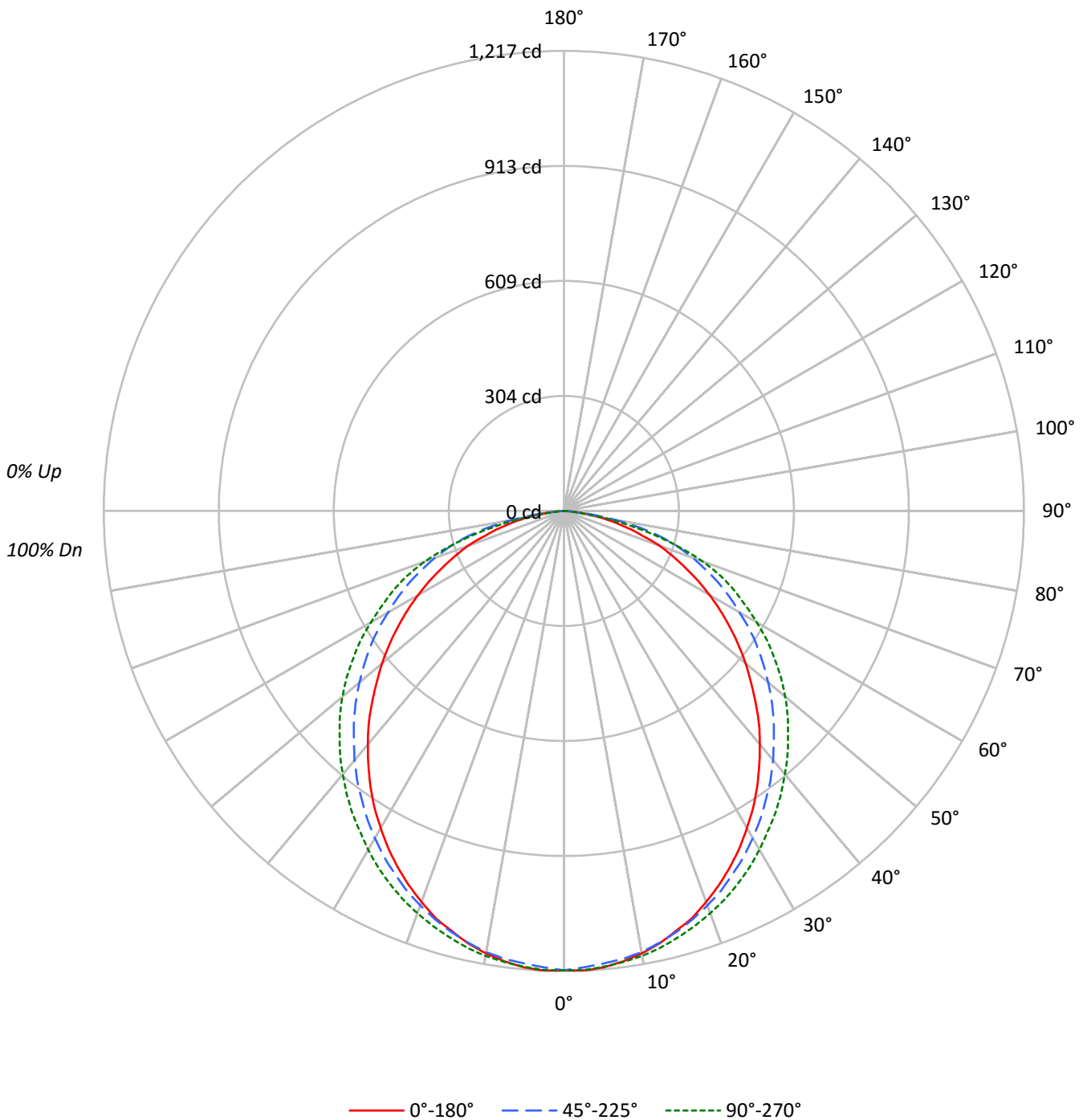
Input Watts (W): 29.5
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	3270	3270	3270
5°	3273	3246	3269
10°	3247	3237	3265
15°	3202	3211	3254
20°	3151	3180	3243
25°	3087	3142	3232
30°	3010	3104	3215
35°	2927	3060	3205
40°	2834	3023	3196
45°	2730	2987	3192
50°	2628	2954	3201
55°	2518	2930	3191
60°	2398	2888	3170
65°	2257	2880	3170
70°	2124	2855	3081
75°	1842	2791	2633
80°	1491	2249	1753
85°	991	781	522



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	114.7	3.4
10°-20°	326.5	9.6
20°-30°	489.8	14.4
30°-40°	584.3	17.2
40°-50°	604.0	17.7
50°-60°	551.5	16.2
60°-70°	434.0	12.7
70°-80°	252.6	7.4
80°-90°	46.5	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°	931.1	27.4
0°-40°	1515.3	44.5
0°-60°	2670.8	78.5
0°-90°	3404.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3404.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1215	1215	1215	1215	1215	
5°	1212	1208	1202	1212	1210	115
15°	1149	1151	1153	1168	1168	324
25°	1040	1045	1058	1084	1089	479
35°	891	903	932	967	976	557
45°	717	741	785	829	839	554
55°	537	565	624	670	680	480
65°	354	392	452	488	498	352
75°	177	219	268	263	253	188
85°	32	46	25	20	17	42
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1215.2	1215.2	1215.2	1215.2	1215.2
2.5°	1216.9	1213.5	1208.4	1216.9	1215.2
5°	1211.8	1208.4	1201.7	1211.8	1210.1
7.5°	1201.7	1198.3	1194.9	1205.0	1203.4
10°	1188.2	1186.5	1184.8	1196.6	1194.9
12.5°	1171.3	1171.3	1169.6	1183.1	1183.1
15°	1149.3	1151.0	1152.7	1167.9	1167.9
17.5°	1129.1	1127.4	1132.5	1149.3	1151.0
20°	1100.4	1103.8	1110.5	1130.8	1132.5
22.5°	1071.7	1075.1	1086.9	1107.2	1112.2
25°	1039.6	1044.7	1058.2	1083.5	1088.6
27.5°	1005.9	1012.6	1031.2	1058.2	1063.3
30°	968.8	978.9	999.1	1029.5	1034.6
32.5°	931.6	941.8	967.1	997.5	1004.2
35°	891.1	902.9	931.6	967.1	975.5
37.5°	848.9	864.1	897.9	933.3	943.4
40°	806.7	823.6	860.7	897.9	909.7
42.5°	764.5	781.4	821.9	864.1	875.9
45°	717.3	740.9	784.8	828.7	838.8
47.5°	671.7	697.0	746.0	789.9	803.4
50°	627.8	653.2	705.5	751.0	764.5
52.5°	582.3	609.3	665.0	712.2	724.0
55°	536.7	565.4	624.5	670.0	680.2
57.5°	491.1	521.5	582.3	626.2	638.0
60°	445.6	477.6	536.7	580.6	589.0
62.5°	400.0	433.7	494.5	533.3	541.8
65°	354.4	391.6	452.3	487.8	497.9
67.5°	310.5	347.7	406.7	440.5	448.9
70°	270.0	303.8	362.9	388.2	391.6
72.5°	219.4	261.6	319.0	332.5	324.0
75°	177.2	219.4	268.4	263.3	253.2
77.5°	135.0	177.2	209.3	192.4	178.9
80°	96.2	138.4	145.1	119.8	113.1
82.5°	62.4	96.2	81.0	62.4	50.6
85°	32.1	45.6	25.3	20.3	16.9
87.5°	10.1	6.8	3.4	3.4	1.7
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)