

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: P307928

Luminaire Tested: **14FCZ2-35-UNV-L82765-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: P307928
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-L82765-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: 3398.0 lumens
Efficiency: N/A
Efficacy: 114.0 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

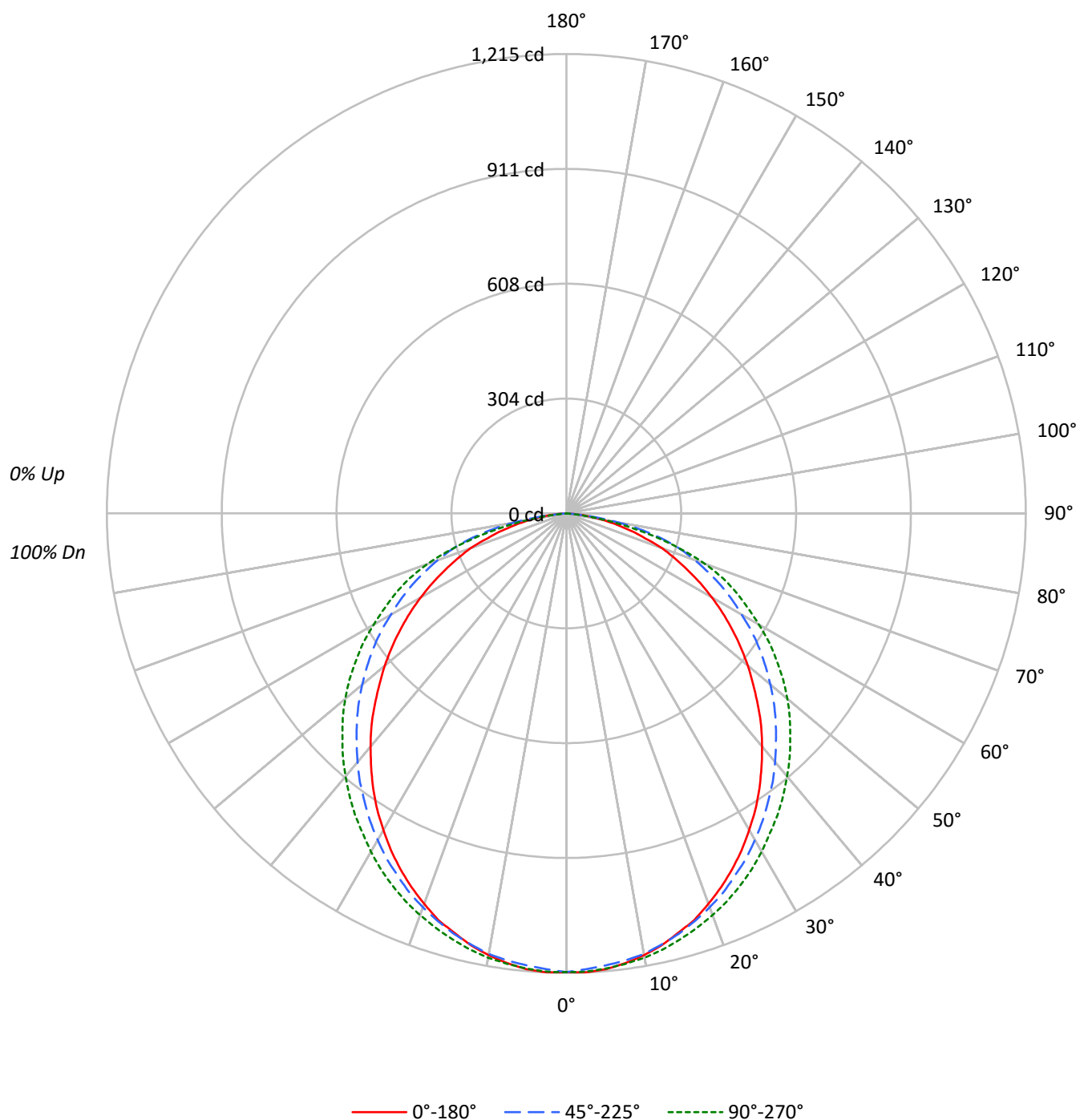
Input Watts (W): 29.8
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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				0
RW	70	50	30	10	70	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		100
1	109	104	100	96	106	102	98	94	97	94	91		94	91	89		84
2	99	90	84	78	96	89	82	77	85	80	75		82	77	73		70
3	90	79	71	65	87	78	70	64	75	68	63		72	66	62		58
4	82	70	61	55	80	69	61	54	66	59	53		64	58	53		50
5	76	63	54	47	74	62	53	47	59	52	46		57	51	46		43
6	70	56	47	41	68	55	47	41	54	46	40		52	45	40		38
7	65	51	42	36	63	50	42	36	49	41	36		47	41	35		33
8	60	47	38	32	59	46	38	32	45	37	32		43	37	32		30
9	56	43	35	29	55	42	34	29	41	34	29		40	33	29		27
10	53	40	32	26	52	39	31	26	38	31	26		37	31	26		24

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	3264	3264	3264
5°	3268	3240	3263
10°	3241	3232	3259
15°	3196	3206	3248
20°	3146	3175	3237
25°	3081	3136	3227
30°	3005	3099	3209
35°	2922	3055	3199
40°	2829	3018	3190
45°	2725	2981	3186
50°	2624	2948	3195
55°	2514	2925	3186
60°	2394	2884	3165
65°	2253	2875	3165
70°	2121	2850	3076
75°	1839	2785	2627
80°	1488	2245	1750
85°	988	781	519



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	114.5	3.4
10°-20°	325.9	9.6
20°-30°	488.9	14.4
30°-40°	583.3	17.2
40°-50°	603.0	17.7
50°-60°	550.5	16.2
60°-70°	433.2	12.7
70°-80°	252.2	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°	929.4	27.4
0°-40°	1512.7	44.5
0°-60°	2666.1	78.5
0°-90°	3398.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3398.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1213	1213	1213	1213	1213	
5°	1210	1206	1200	1210	1208	115
15°	1147	1149	1151	1166	1166	324
25°	1038	1043	1056	1082	1087	478
35°	890	901	930	965	974	556
45°	716	740	783	827	837	553
55°	536	564	623	669	679	479
65°	354	391	452	487	497	351
75°	177	219	268	263	253	188
85°	32	46	25	20	17	41
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1213.0	1213.0	1213.0	1213.0	1213.0
2.5°	1214.7	1211.3	1206.3	1214.7	1213.0
5°	1209.7	1206.3	1199.6	1209.7	1208.0
7.5°	1199.6	1196.2	1192.8	1202.9	1201.2
10°	1186.1	1184.4	1182.7	1194.5	1192.8
12.5°	1169.2	1169.2	1167.5	1181.0	1181.0
15°	1147.3	1149.0	1150.7	1165.9	1165.9
17.5°	1127.1	1125.4	1130.5	1147.3	1149.0
20°	1098.5	1101.8	1108.6	1128.8	1130.5
22.5°	1069.8	1073.2	1085.0	1105.2	1110.3
25°	1037.8	1042.9	1056.3	1081.6	1086.7
27.5°	1004.1	1010.9	1029.4	1056.3	1061.4
30°	967.1	977.2	997.4	1027.7	1032.8
32.5°	930.0	940.1	965.4	995.7	1002.4
35°	889.6	901.3	930.0	965.4	973.8
37.5°	847.4	862.6	896.3	931.7	941.8
40°	805.3	822.2	859.2	896.3	908.1
42.5°	763.2	780.0	820.5	862.6	874.4
45°	716.0	739.6	783.4	827.2	837.3
47.5°	670.5	695.8	744.7	788.5	801.9
50°	626.7	652.0	704.2	749.7	763.2
52.5°	581.2	608.2	663.8	711.0	722.8
55°	535.8	564.4	623.4	668.9	679.0
57.5°	490.3	520.6	581.2	625.0	636.8
60°	444.8	476.8	535.8	579.6	588.0
62.5°	399.3	433.0	493.6	532.4	540.8
65°	353.8	390.9	451.5	486.9	497.0
67.5°	310.0	347.1	406.0	439.7	448.1
70°	269.6	303.3	362.2	387.5	390.9
72.5°	219.0	261.1	318.4	331.9	323.5
75°	176.9	219.0	267.9	262.8	252.7
77.5°	134.8	176.9	208.9	192.1	178.6
80°	96.0	138.2	144.9	119.6	112.9
82.5°	62.3	96.0	80.9	62.3	50.5
85°	32.0	45.5	25.3	20.2	16.8
87.5°	10.1	6.7	3.4	3.4	1.7
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)