

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: P307959

Luminaire Tested: **14FCZ2-35-UNV-L82765-S-CP187-W2A-U-5700K**

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: P307959
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-CP187-W2A-U-5700K
Description: 1'X4' TROFFER LED MODULE,SMOOTH LENS, 0.187" POLYCARB SHEET
Light Source: (168) 5700K 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: 3320.0 lumens
Efficiency: N/A
Efficacy: 109.6 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

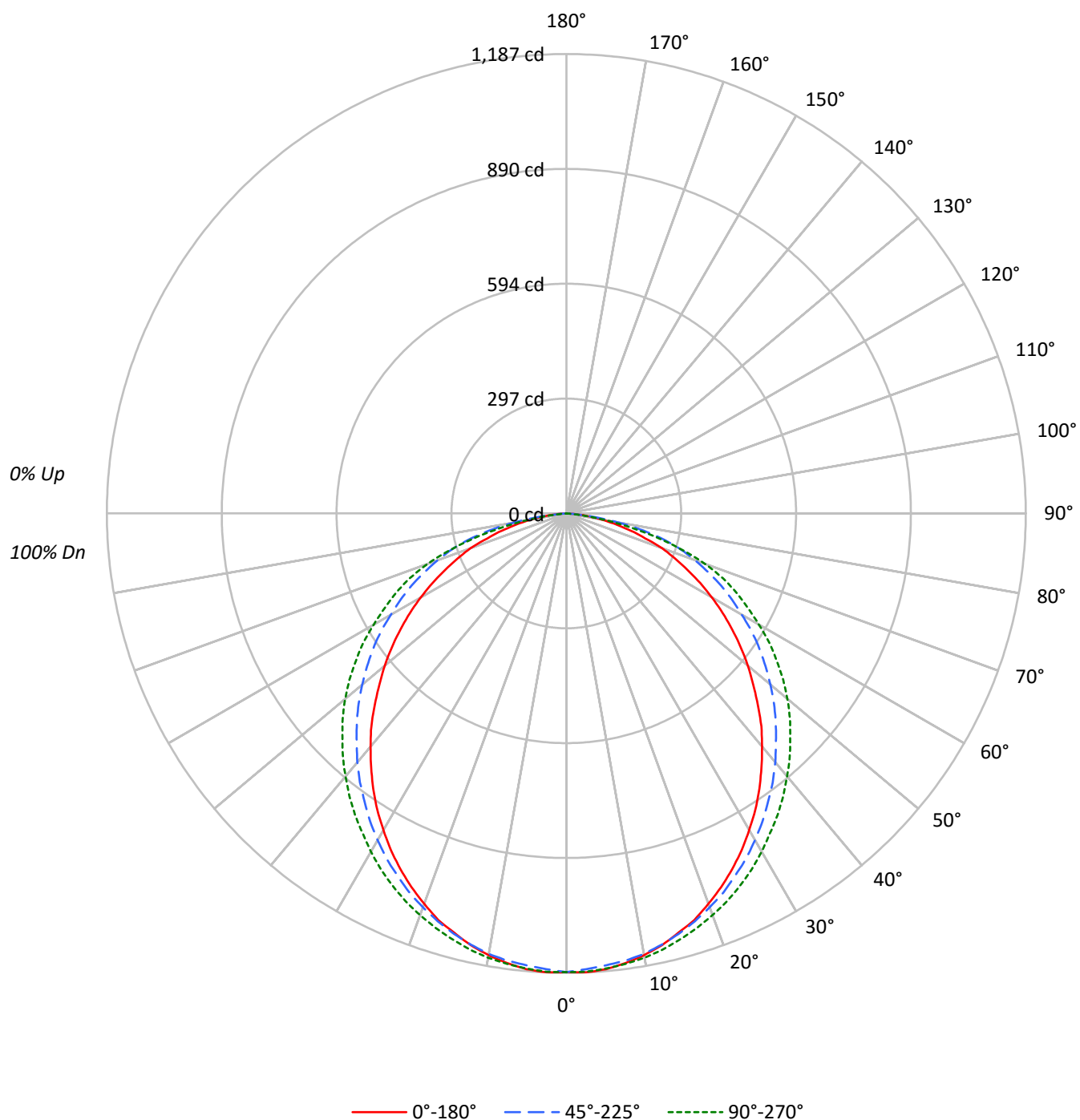
Input Watts (W): 30.3
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	3189	3189	3189
5°	3193	3166	3188
10°	3166	3158	3184
15°	3123	3132	3173
20°	3074	3102	3163
25°	3011	3064	3152
30°	2936	3028	3136
35°	2855	2985	3125
40°	2764	2949	3117
45°	2662	2913	3113
50°	2563	2881	3122
55°	2456	2858	3112
60°	2339	2817	3092
65°	2201	2809	3092
70°	2072	2784	3005
75°	1797	2721	2567
80°	1454	2194	1709
85°	966	763	509



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	111.9	3.4
10°-20°	318.5	9.6
20°-30°	477.7	14.4
30°-40°	569.9	17.2
40°-50°	589.1	17.7
50°-60°	537.9	16.2
60°-70°	423.3	12.7
70°-80°	246.4	7.4
80°-90°	45.4	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°	908.1	27.4
0°-40°	1477.9	44.5
0°-60°	2604.9	78.5
0°-90°	3320.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3320.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1185	1185	1185	1185	1185	
5°	1182	1179	1172	1182	1180	112
15°	1121	1123	1124	1139	1139	316
25°	1014	1019	1032	1057	1062	467
35°	869	881	909	943	951	543
45°	700	723	765	808	818	540
55°	524	551	609	654	663	468
65°	346	382	441	476	486	343
75°	173	214	262	257	247	184
85°	31	44	25	20	16	41
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1185.2	1185.2	1185.2	1185.2	1185.2
2.5°	1186.8	1183.5	1178.6	1186.8	1185.2
5°	1181.9	1178.6	1172.0	1181.9	1180.2
7.5°	1172.0	1168.7	1165.4	1175.3	1173.7
10°	1158.8	1157.2	1155.6	1167.1	1165.4
12.5°	1142.4	1142.4	1140.7	1153.9	1153.9
15°	1121.0	1122.6	1124.3	1139.1	1139.1
17.5°	1101.2	1099.6	1104.5	1121.0	1122.6
20°	1073.3	1076.5	1083.1	1102.9	1104.5
22.5°	1045.3	1048.6	1060.1	1079.8	1084.8
25°	1014.0	1018.9	1032.1	1056.8	1061.7
27.5°	981.1	987.7	1005.8	1032.1	1037.0
30°	944.9	954.7	974.5	1004.1	1009.1
32.5°	908.6	918.5	943.2	972.8	979.4
35°	869.1	880.7	908.6	943.2	951.4
37.5°	828.0	842.8	875.7	910.3	920.2
40°	786.8	803.3	839.5	875.7	887.2
42.5°	745.7	762.1	801.6	842.8	854.3
45°	699.6	722.6	765.4	808.2	818.1
47.5°	655.1	679.8	727.6	770.4	783.5
50°	612.3	637.0	688.1	732.5	745.7
52.5°	567.9	594.2	648.6	694.7	706.2
55°	523.5	551.4	609.1	653.5	663.4
57.5°	479.0	508.6	567.9	610.7	622.2
60°	434.6	465.8	523.5	566.3	574.5
62.5°	390.1	423.0	482.3	520.2	528.4
65°	345.7	381.9	441.2	475.7	485.6
67.5°	302.9	339.1	396.7	429.6	437.9
70°	263.4	296.3	353.9	378.6	381.9
72.5°	214.0	255.1	311.1	324.3	316.0
75°	172.8	214.0	261.7	256.8	246.9
77.5°	131.7	172.8	204.1	187.7	174.5
80°	93.8	135.0	141.6	116.9	110.3
82.5°	60.9	93.8	79.0	60.9	49.4
85°	31.3	44.4	24.7	19.8	16.5
87.5°	9.9	6.6	3.3	3.3	1.6
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)