

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: P307690

Luminaire Tested: **14FCZ2-35-UNV-L82765-CP187-W2A-U-6500K**

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: P307690
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1805-783-49)
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-CP187-W2A-U-6500K
Description: 1'X4' TROFFER LED MODULE,RIBBED LENS, 0.187" POLYCARB SHEET
Light Source: (168) 6500K 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: 3295.0 lumens
Efficiency: N/A
Efficacy: 107.0 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.28 / 1.37
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

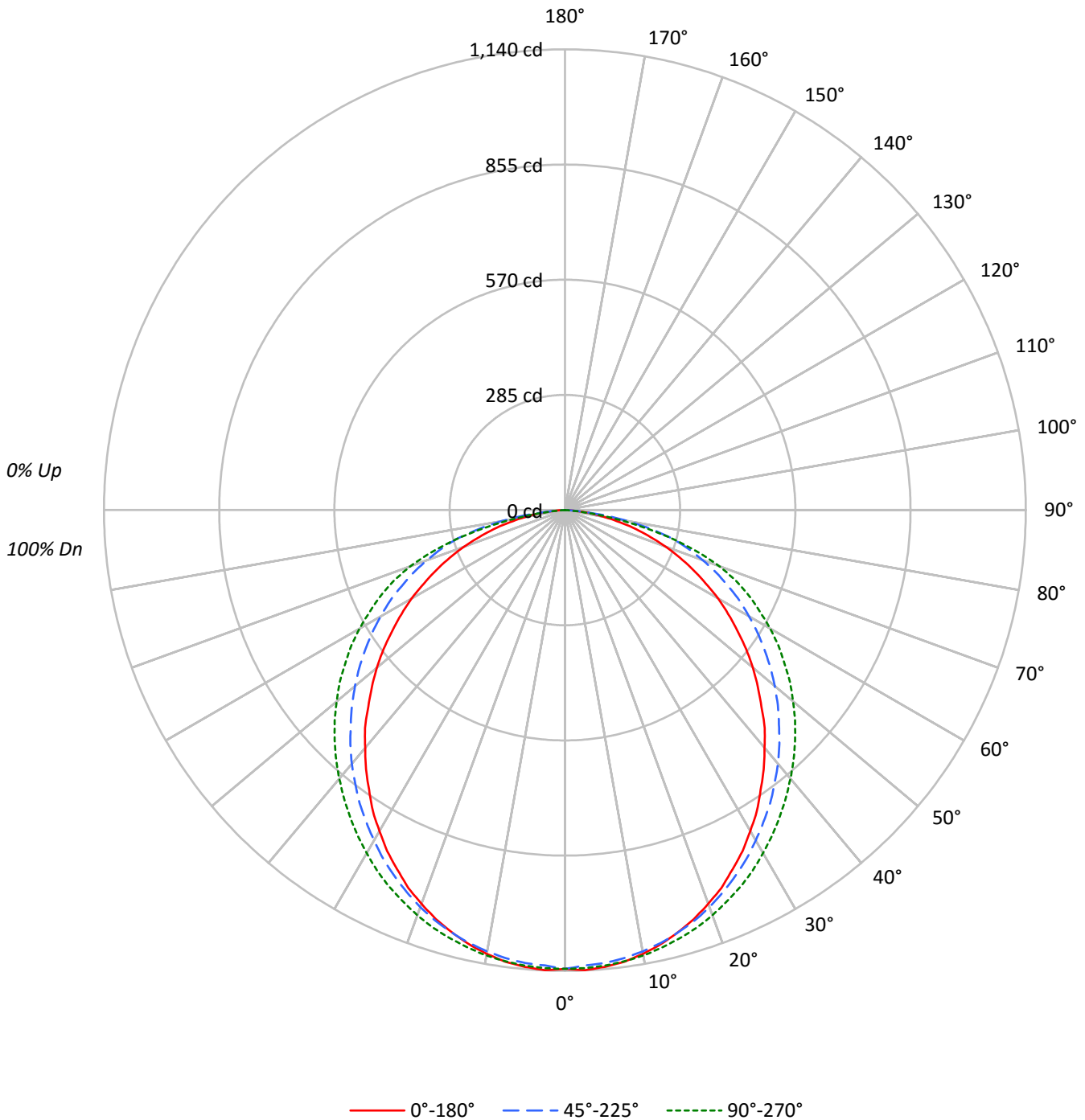
Input Watts (W): 30.8
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	99	95	106	101	97	94	97	94	91	93	90	88	90	87	85	83
2	98	90	83	77	96	88	82	76	84	79	74	81	77	73	78	74	71	69
3	89	79	70	64	87	77	69	63	74	67	62	71	66	61	69	64	60	58
4	82	70	61	54	79	68	60	53	66	58	53	63	57	52	61	56	51	49
5	75	62	53	46	73	61	52	46	59	51	45	57	50	45	55	49	44	42
6	69	56	47	40	67	55	46	40	53	45	40	51	44	39	50	44	39	37
7	64	51	42	35	63	50	41	35	48	41	35	47	40	35	45	39	34	32
8	60	46	37	32	58	45	37	31	44	37	31	43	36	31	42	35	31	29
9	56	42	34	28	54	42	34	28	41	33	28	39	33	28	38	32	28	26
10	52	39	31	26	51	39	31	26	37	30	26	37	30	25	36	30	25	24

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	3055	3055	3055
5°	3064	3039	3056
10°	3046	3030	3058
15°	3013	3015	3056
20°	2969	2994	3055
25°	2912	2965	3052
30°	2849	2934	3045
35°	2773	2908	3044
40°	2700	2880	3048
45°	2617	2849	3065
50°	2541	2836	3085
55°	2444	2827	3112
60°	2357	2831	3155
65°	2236	2840	3205
70°	2098	2862	3202
75°	1902	2887	2896
80°	1561	2493	2061
85°	1158	1179	475



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	107.4	3.3
10°-20°	306.8	9.3
20°-30°	462.2	14.0
30°-40°	554.7	16.8
40°-50°	578.1	17.5
50°-60°	535.2	16.2
60°-70°	432.4	13.1
70°-80°	263.7	8.0
80°-90°	54.4	1.7
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°	876.5	26.6
0°-40°	1431.1	43.4
0°-60°	2544.5	77.2
0°-90°	3295.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3295.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1135	1135	1135	1135	1135	
5°	1134	1132	1125	1133	1132	108
15°	1082	1082	1082	1097	1097	305
25°	981	987	998	1024	1028	452
35°	844	857	885	918	926	529
45°	688	708	749	791	805	532
55°	521	548	602	650	663	467
65°	351	386	446	491	503	347
75°	183	223	278	282	278	192
85°	38	56	38	21	15	46
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1135.1	1135.1	1135.1	1135.1	1135.1
2.5°	1139.5	1135.9	1127.8	1135.9	1134.4
5°	1134.4	1131.5	1124.9	1132.9	1131.5
7.5°	1127.1	1124.1	1118.2	1127.8	1126.3
10°	1114.6	1113.1	1108.7	1119.7	1119.0
12.5°	1099.9	1099.1	1096.9	1109.4	1108.7
15°	1081.5	1082.2	1082.2	1096.9	1096.9
17.5°	1060.9	1062.4	1065.3	1081.5	1083.7
20°	1036.7	1039.6	1045.5	1063.9	1066.8
22.5°	1011.7	1013.9	1022.7	1044.8	1047.7
25°	980.8	986.7	998.5	1023.5	1027.9
27.5°	951.5	956.6	972.8	998.5	1005.8
30°	916.9	925.0	944.1	972.0	980.1
32.5°	883.9	892.7	914.7	947.1	954.4
35°	844.2	857.4	885.3	917.7	926.5
37.5°	808.2	820.7	852.3	887.5	897.8
40°	768.5	783.9	819.9	857.4	867.7
42.5°	731.8	746.5	785.4	823.6	837.6
45°	687.7	708.3	748.7	790.6	805.3
47.5°	647.3	667.9	714.1	759.0	772.2
50°	606.9	628.9	677.4	723.7	736.9
52.5°	565.0	588.5	640.7	687.0	702.4
55°	520.9	548.1	602.5	649.5	663.4
57.5°	479.0	507.0	565.0	612.8	626.7
60°	437.9	466.5	526.1	571.6	586.3
62.5°	392.3	426.1	487.9	532.7	543.7
65°	351.2	385.7	446.0	490.8	503.3
67.5°	307.8	345.3	405.6	446.7	458.5
70°	266.7	305.6	363.7	401.9	407.0
72.5°	222.6	262.3	321.1	345.3	345.3
75°	182.9	223.4	277.7	282.1	278.5
77.5°	139.6	184.4	219.7	210.9	202.0
80°	100.7	144.7	160.9	144.7	133.0
82.5°	67.6	105.1	97.0	77.1	68.3
85°	37.5	55.8	38.2	21.3	15.4
87.5°	14.0	12.5	3.7	3.7	3.7
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)