

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: P307958

Luminaire Tested: **14FCZ2-35-UNV-L82765-S-CP187-W2A-U-5500K**

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: P307958
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-5500K
Description: 1'X4' TROFFER LED MODULE,SMOOTH LENS, 0.187" POLYCARB SHEET
Light Source: (168) 5500K 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: 3312.0 lumens
Efficiency: N/A
Efficacy: 109.3 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

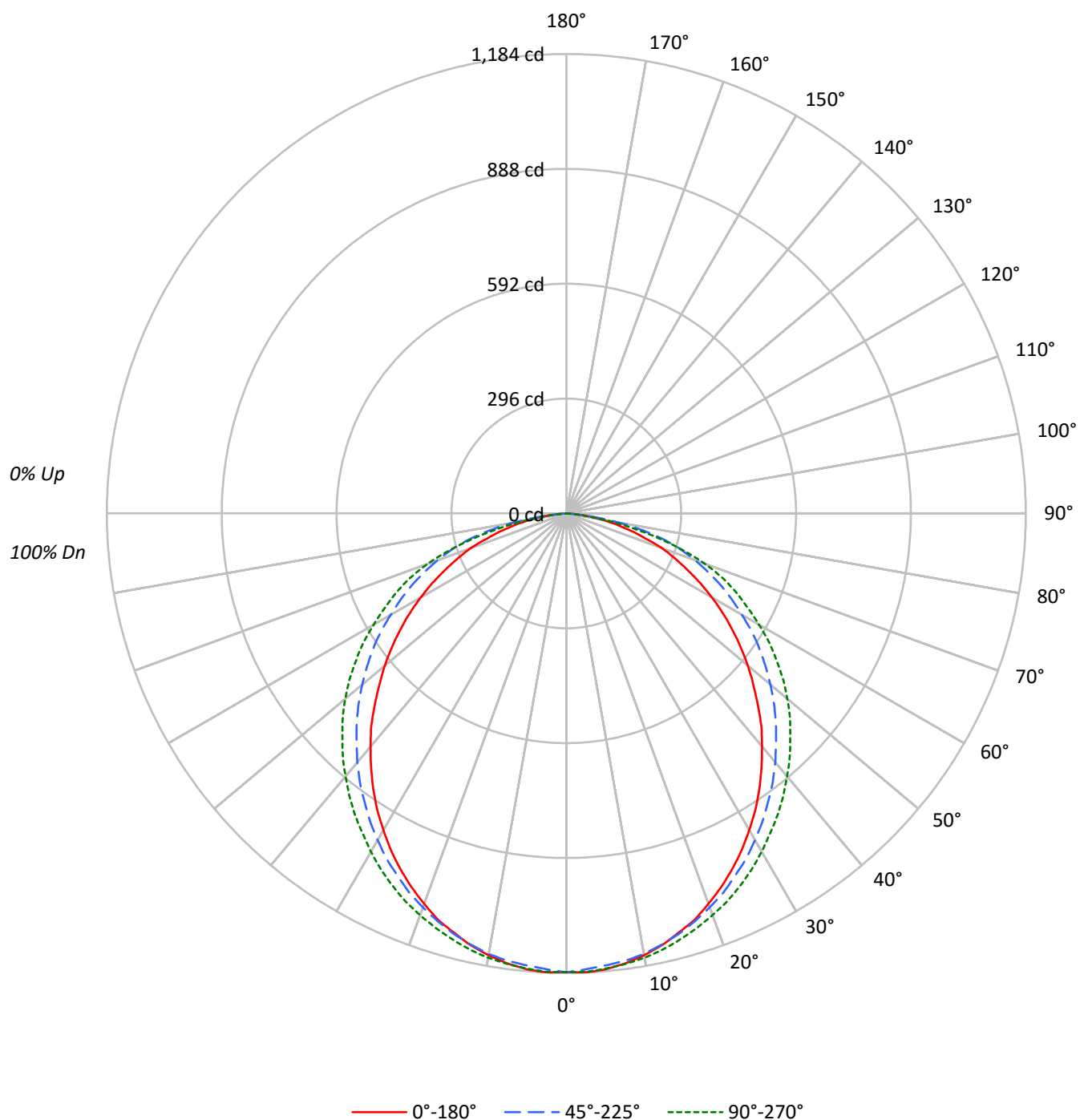
Input Watts (W): 30.3
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	3182	3182	3182
5°	3185	3158	3180
10°	3159	3150	3177
15°	3115	3125	3166
20°	3066	3094	3155
25°	3003	3057	3145
30°	2929	3021	3128
35°	2848	2978	3118
40°	2757	2942	3109
45°	2656	2906	3106
50°	2557	2874	3114
55°	2450	2851	3105
60°	2333	2810	3084
65°	2195	2802	3084
70°	2067	2778	2998
75°	1792	2715	2561
80°	1450	2188	1705
85°	963	760	506



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	111.6	3.4
10°-20°	317.7	9.6
20°-30°	476.6	14.4
30°-40°	568.5	17.2
40°-50°	587.7	17.7
50°-60°	536.6	16.2
60°-70°	422.3	12.7
70°-80°	245.8	7.4
80°-90°	45.3	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°	905.9	27.4
0°-40°	1474.4	44.5
0°-60°	2598.6	78.5
0°-90°	3312.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3312.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1182	1182	1182	1182	1182	
5°	1179	1176	1169	1179	1177	112
15°	1118	1120	1122	1136	1136	316
25°	1012	1016	1030	1054	1059	466
35°	867	878	906	941	949	542
45°	698	721	764	806	816	539
55°	522	550	608	652	662	467
65°	345	381	440	475	484	342
75°	172	214	261	256	246	183
85°	31	44	25	20	16	40
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1182.3	1182.3	1182.3	1182.3	1182.3
2.5°	1184.0	1180.7	1175.8	1184.0	1182.3
5°	1179.0	1175.8	1169.2	1179.0	1177.4
7.5°	1169.2	1165.9	1162.6	1172.5	1170.8
10°	1156.1	1154.4	1152.8	1164.3	1162.6
12.5°	1139.6	1139.6	1138.0	1151.1	1151.1
15°	1118.3	1119.9	1121.6	1136.3	1136.3
17.5°	1098.6	1096.9	1101.9	1118.3	1119.9
20°	1070.7	1073.9	1080.5	1100.2	1101.9
22.5°	1042.7	1046.0	1057.5	1077.2	1082.2
25°	1011.5	1016.5	1029.6	1054.2	1059.2
27.5°	978.7	985.3	1003.3	1029.6	1034.5
30°	942.6	952.4	972.1	1001.7	1006.6
32.5°	906.5	916.3	940.9	970.5	977.1
35°	867.0	878.5	906.5	940.9	949.1
37.5°	826.0	840.8	873.6	908.1	917.9
40°	784.9	801.4	837.5	873.6	885.1
42.5°	743.9	760.3	799.7	840.8	852.3
45°	697.9	720.9	763.6	806.3	816.1
47.5°	653.6	678.2	725.8	768.5	781.7
50°	610.9	635.5	686.4	730.7	743.9
52.5°	566.5	592.8	647.0	693.0	704.5
55°	522.2	550.1	607.6	651.9	661.8
57.5°	477.9	507.4	566.5	609.2	620.7
60°	433.5	464.7	522.2	564.9	573.1
62.5°	389.2	422.0	481.1	518.9	527.1
65°	344.8	381.0	440.1	474.6	484.4
67.5°	302.2	338.3	395.8	428.6	436.8
70°	262.7	295.6	353.1	377.7	381.0
72.5°	213.5	254.5	310.4	323.5	315.3
75°	172.4	213.5	261.1	256.2	246.3
77.5°	131.4	172.4	203.6	187.2	174.1
80°	93.6	134.7	141.2	116.6	110.0
82.5°	60.8	93.6	78.8	60.8	49.3
85°	31.2	44.3	24.6	19.7	16.4
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)