

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: P307695

Luminaire Tested: **14FCZ2-35-UNV-L82765-CP250-W2A-U-4500K**

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: P307695
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-CP250-W2A-U-4500K
Description: 1'X4' TROFFER LED MODULE,RIBBED LENS, 0.250" POLYCARB SHEET
Light Source: (168) 4500K 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: 3176.0 lumens
Efficiency: N/A
Efficacy: 105.5 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

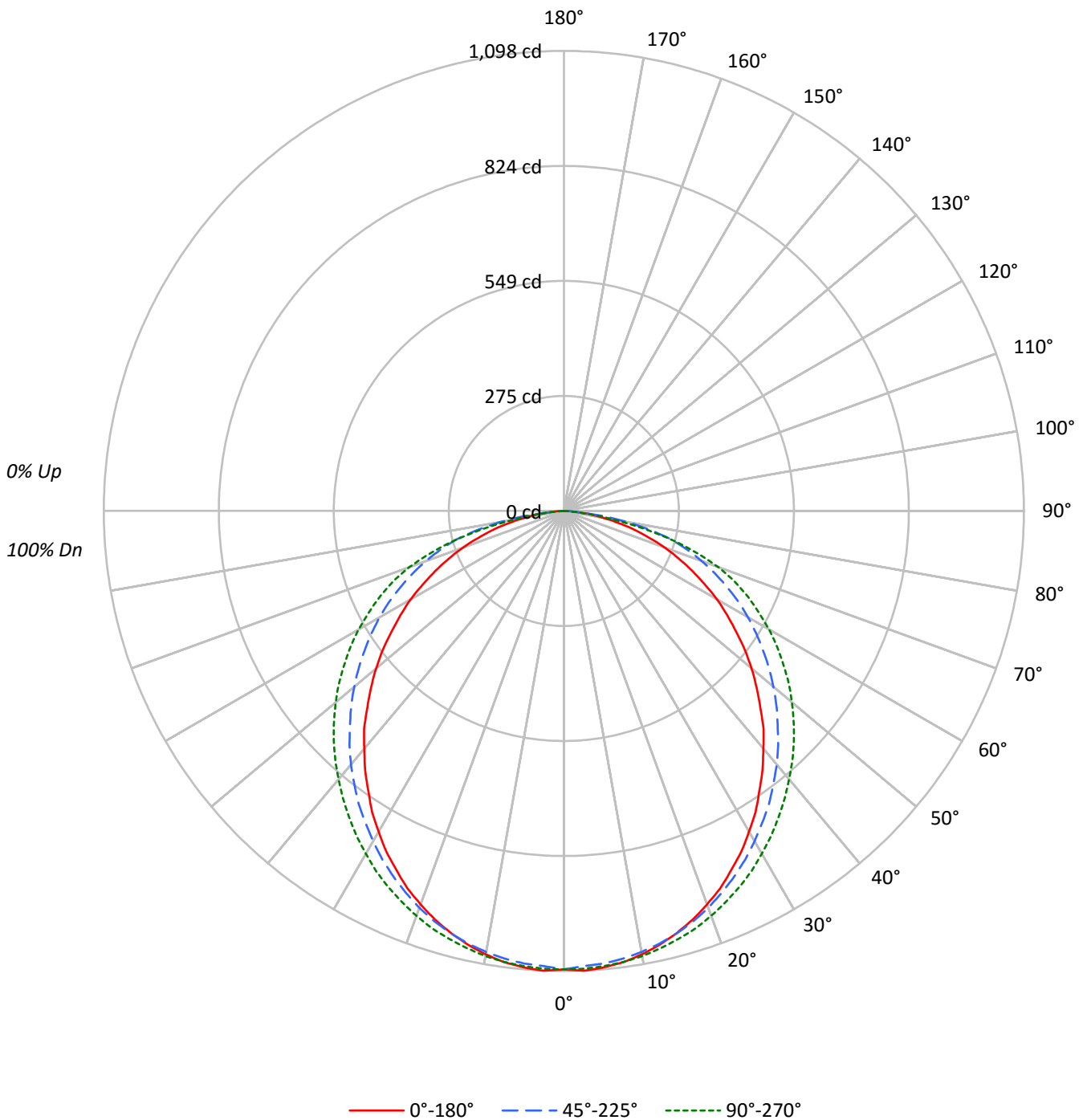
Input Watts (W): 30.1
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	2944	2944	2944
5°	2954	2929	2946
10°	2936	2920	2947
15°	2904	2906	2946
20°	2861	2886	2945
25°	2807	2858	2942
30°	2746	2828	2935
35°	2673	2803	2934
40°	2602	2776	2938
45°	2523	2746	2954
50°	2449	2733	2974
55°	2356	2724	3000
60°	2272	2729	3041
65°	2155	2737	3089
70°	2023	2758	3087
75°	1833	2783	2791
80°	1503	2404	1987
85°	1115	1136	460



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	103.5	3.3
10°-20°	295.8	9.3
20°-30°	445.5	14.0
30°-40°	534.6	16.8
40°-50°	557.2	17.5
50°-60°	515.9	16.2
60°-70°	416.8	13.1
70°-80°	254.1	8.0
80°-90°	52.5	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°	844.8	26.6
0°-40°	1379.4	43.4
0°-60°	2452.6	77.2
0°-90°	3176.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3176.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1094	1094	1094	1094	1094	
5°	1093	1091	1084	1092	1091	104
15°	1042	1043	1043	1057	1057	294
25°	945	951	962	986	991	436
35°	814	826	853	884	893	510
45°	663	683	722	762	776	512
55°	502	528	581	626	640	450
65°	338	372	430	473	485	335
75°	176	215	268	272	268	185
85°	36	54	37	20	15	44
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1094.1	1094.1	1094.1	1094.1	1094.1
2.5°	1098.4	1094.9	1087.1	1094.9	1093.4
5°	1093.4	1090.6	1084.2	1092.0	1090.6
7.5°	1086.4	1083.5	1077.9	1087.1	1085.6
10°	1074.3	1072.9	1068.6	1079.3	1078.6
12.5°	1060.1	1059.4	1057.3	1069.4	1068.6
15°	1042.4	1043.2	1043.2	1057.3	1057.3
17.5°	1022.6	1024.0	1026.9	1042.4	1044.6
20°	999.2	1002.1	1007.7	1025.4	1028.3
22.5°	975.2	977.3	985.8	1007.0	1009.9
25°	945.4	951.1	962.4	986.5	990.7
27.5°	917.1	922.1	937.6	962.4	969.5
30°	883.8	891.6	910.0	936.9	944.7
32.5°	851.9	860.4	881.7	912.8	919.9
35°	813.7	826.4	853.4	884.5	893.0
37.5°	779.0	791.0	821.5	855.5	865.4
40°	740.8	755.6	790.3	826.4	836.4
42.5°	705.4	719.5	757.0	793.9	807.3
45°	662.9	682.7	721.6	762.0	776.2
47.5°	623.9	643.7	688.4	731.6	744.3
50°	585.0	606.2	652.9	697.6	710.3
52.5°	544.6	567.3	617.5	662.2	677.0
55°	502.1	528.3	580.7	626.0	639.5
57.5°	461.7	488.6	544.6	590.6	604.1
60°	422.1	449.7	507.1	551.0	565.1
62.5°	378.2	410.7	470.2	513.4	524.1
65°	338.5	371.8	429.9	473.1	485.1
67.5°	296.7	332.8	390.9	430.6	441.9
70°	257.1	294.6	350.6	387.4	392.3
72.5°	214.6	252.8	309.5	332.8	332.8
75°	176.3	215.3	267.7	271.9	268.4
77.5°	134.6	177.8	211.7	203.2	194.8
80°	97.0	139.5	155.1	139.5	128.2
82.5°	65.2	101.3	93.5	74.4	65.9
85°	36.1	53.8	36.8	20.5	14.9
87.5°	13.5	12.0	3.5	3.5	3.5
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)