

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: P307965

Luminaire Tested: **14FCZ2-35-UNV-L82765-S-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: P307965
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-CP250-W2A-U-4500K
Description: 1'X4' TROFFER LED MODULE,SMOOTH 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: 3209.0 lumens
Efficiency: N/A
Efficacy: 106.6 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

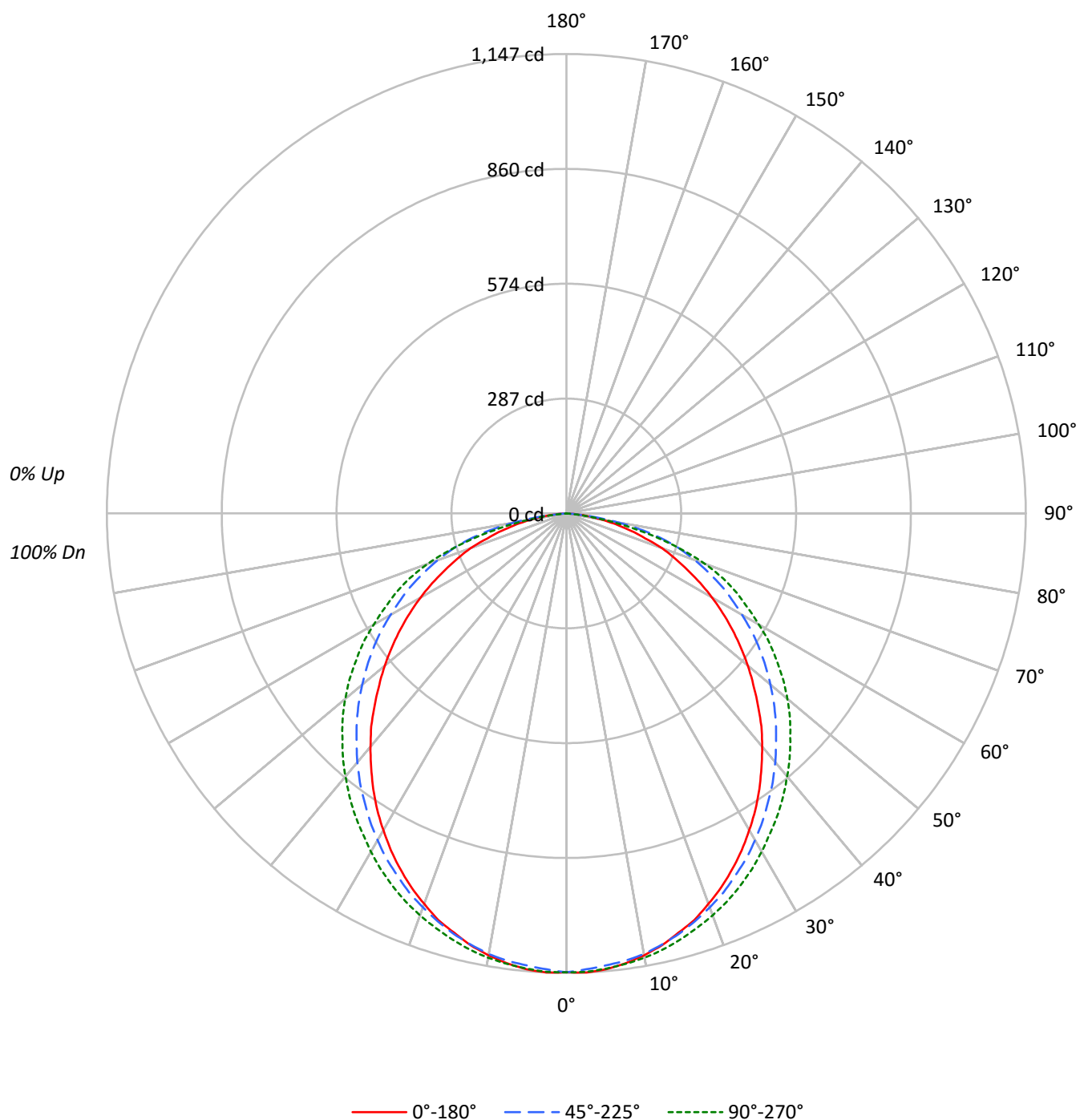
Input Watts (W): 30.1
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	3083	3083	3083
5°	3086	3060	3082
10°	3061	3052	3078
15°	3019	3027	3067
20°	2971	2998	3057
25°	2910	2962	3047
30°	2838	2927	3031
35°	2760	2885	3021
40°	2672	2850	3013
45°	2573	2815	3009
50°	2478	2784	3017
55°	2374	2762	3008
60°	2260	2723	2989
65°	2127	2715	2989
70°	2003	2692	2904
75°	1737	2630	2482
80°	1406	2120	1652
85°	932	738	491



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	108.2	3.4
10°-20°	307.8	9.6
20°-30°	461.7	14.4
30°-40°	550.8	17.2
40°-50°	569.4	17.7
50°-60°	519.9	16.2
60°-70°	409.1	12.7
70°-80°	238.2	7.4
80°-90°	43.9	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°	877.7	27.4
0°-40°	1428.5	44.5
0°-60°	2517.8	78.5
0°-90°	3209.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3209.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1146	1146	1146	1146	1146	
5°	1142	1139	1133	1142	1141	108
15°	1084	1085	1087	1101	1101	306
25°	980	985	998	1022	1026	451
35°	840	851	878	912	920	525
45°	676	698	740	781	791	522
55°	506	533	589	632	641	452
65°	334	369	426	460	469	332
75°	167	207	253	248	239	178
85°	30	43	24	19	16	39
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1145.6	1145.6	1145.6	1145.6	1145.6
2.5°	1147.2	1144.0	1139.2	1147.2	1145.6
5°	1142.4	1139.2	1132.8	1142.4	1140.8
7.5°	1132.8	1129.6	1126.5	1136.0	1134.4
10°	1120.1	1118.5	1116.9	1128.1	1126.5
12.5°	1104.2	1104.2	1102.6	1115.3	1115.3
15°	1083.5	1085.1	1086.7	1101.0	1101.0
17.5°	1064.4	1062.8	1067.6	1083.5	1085.1
20°	1037.4	1040.6	1046.9	1066.0	1067.6
22.5°	1010.3	1013.5	1024.6	1043.7	1048.5
25°	980.1	984.9	997.6	1021.5	1026.2
27.5°	948.3	954.6	972.1	997.6	1002.4
30°	913.3	922.8	941.9	970.5	975.3
32.5°	878.3	887.8	911.7	940.3	946.7
35°	840.1	851.2	878.3	911.7	919.6
37.5°	800.3	814.6	846.4	879.9	889.4
40°	760.5	776.4	811.4	846.4	857.6
42.5°	720.7	736.7	774.8	814.6	825.8
45°	676.2	698.5	739.8	781.2	790.8
47.5°	633.2	657.1	703.2	744.6	757.3
50°	591.9	615.7	665.1	708.0	720.7
52.5°	548.9	574.4	626.9	671.4	682.6
55°	506.0	533.0	588.7	631.6	641.2
57.5°	463.0	491.6	548.9	590.3	601.4
60°	420.0	450.3	506.0	547.3	555.3
62.5°	377.1	408.9	466.2	502.8	510.7
65°	334.1	369.1	426.4	459.8	469.4
67.5°	292.8	327.8	383.4	415.3	423.2
70°	254.6	286.4	342.1	365.9	369.1
72.5°	206.8	246.6	300.7	313.4	305.5
75°	167.1	206.8	253.0	248.2	238.7
77.5°	127.3	167.1	197.3	181.4	168.7
80°	90.7	130.5	136.8	113.0	106.6
82.5°	58.9	90.7	76.4	58.9	47.7
85°	30.2	43.0	23.9	19.1	15.9
87.5°	9.5	6.4	3.2	3.2	1.6
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)