

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: P309030

Luminaire Tested: **22FCZ2-34HE-UNV-L82765-S-CP125-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: P309030
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1805-783-23)
Test Lab: INNOVATION CENTER(G3)
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: FAIL-SAFE
Catalog Number: 22FCZ2-34HE-UNV-L82765-S-CP125-W2A-U-5700K
Description: 2'X2' TROFFER LED MODULE, SMOOTH LENS, 0.125" POLYCARB SHEET
Light Source: (168) 3000K 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: 3325.0 lumens
Efficiency: N/A
Efficacy: 117.1 lumens/watt
Spacing Criteria (0/90/45): 1.18 / 1.26 / 1.34
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

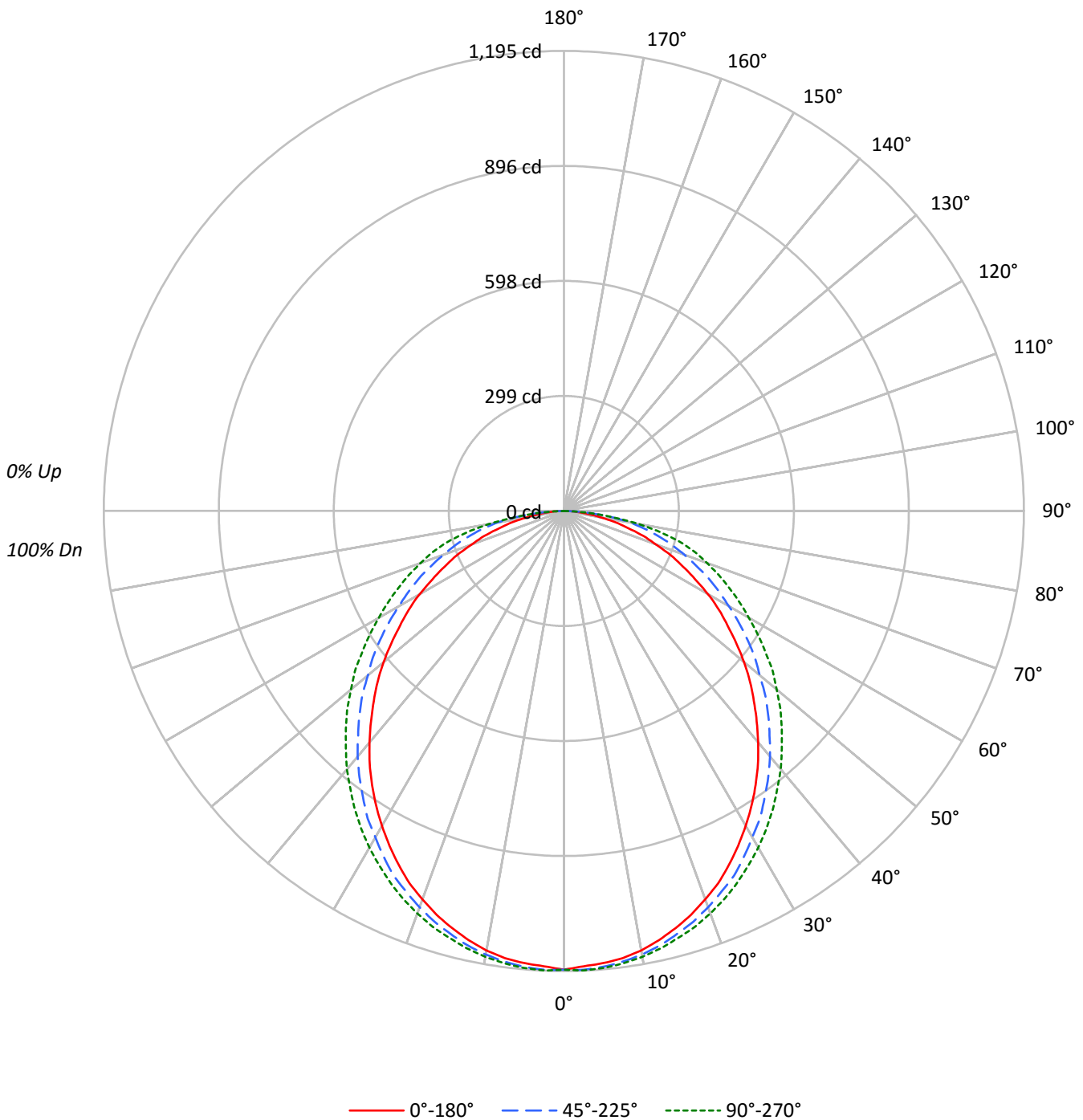
Input Watts (W): 28.4
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	108	103	99	95	106	101	97	94	97	94	91	93	90	88	89	87	85	83
2	98	90	83	77	96	88	82	76	84	79	74	81	77	73	78	74	71	69
3	90	79	71	64	87	77	70	63	74	68	62	72	66	61	69	64	60	58
4	82	70	61	54	80	69	60	54	66	59	53	64	57	52	61	56	52	49
5	75	62	53	47	73	61	53	46	59	52	46	57	51	45	55	50	45	43
6	70	56	47	41	68	55	47	41	53	46	40	52	45	40	50	44	39	37
7	65	51	42	36	63	50	42	36	49	41	36	47	40	35	46	40	35	33
8	60	47	38	32	59	46	38	32	45	37	32	43	37	32	42	36	31	30
9	56	43	35	29	55	42	34	29	41	34	29	40	33	29	39	33	28	27
10	53	40	32	26	51	39	31	26	38	31	26	37	31	26	36	30	26	24

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	3206	3206	3206
5°	3185	3210	3219
10°	3167	3196	3213
15°	3125	3168	3198
20°	3074	3137	3185
25°	3013	3105	3165
30°	2936	3042	3138
35°	2854	2986	3109
40°	2758	2927	3079
45°	2657	2858	3046
50°	2559	2780	3020
55°	2438	2730	2999
60°	2329	2664	2989
65°	2173	2648	3023
70°	2002	2624	3113
75°	1807	2662	3274
80°	1562	2741	3078
85°	1294	2300	2300



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	112.7	3.4
10°-20°	320.6	9.6
20°-30°	479.8	14.4
30°-40°	568.2	17.1
40°-50°	579.0	17.4
50°-60°	519.0	15.6
60°-70°	406.3	12.2
70°-80°	262.0	7.9
80°-90°	77.4	2.3
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°	913.1	27.5
0°-40°	1481.3	44.5
0°-60°	2579.3	77.6
0°-90°	3325.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3325.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1192	1192	1192	1192	1192	
5°	1179	1182	1188	1190	1192	112
15°	1122	1128	1137	1146	1148	316
25°	1015	1024	1046	1060	1066	467
35°	869	880	909	937	946	543
45°	698	714	751	790	800	539
55°	520	537	582	622	639	466
65°	341	362	416	456	475	339
75°	174	200	256	299	315	186
85°	42	57	74	74	74	49
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1191.5	1191.5	1191.5	1191.5	1191.5
2.5°	1183.7	1186.8	1193.0	1194.6	1194.6
5°	1179.0	1182.1	1188.3	1189.9	1191.5
7.5°	1171.3	1172.8	1180.6	1183.7	1185.2
10°	1158.9	1162.0	1169.7	1174.4	1175.9
12.5°	1141.8	1146.5	1155.8	1162.0	1163.5
15°	1121.6	1127.8	1137.2	1146.5	1148.0
17.5°	1099.9	1106.1	1118.5	1129.4	1132.5
20°	1073.5	1081.3	1095.3	1107.7	1112.3
22.5°	1047.2	1053.4	1070.4	1086.0	1090.6
25°	1014.6	1023.9	1045.6	1059.6	1065.8
27.5°	980.5	991.3	1013.0	1031.7	1037.9
30°	944.8	955.6	978.9	1002.2	1009.9
32.5°	907.6	920.0	947.9	971.2	978.9
35°	868.8	879.6	909.1	937.0	946.3
37.5°	828.4	837.7	871.9	901.3	910.7
40°	785.0	797.4	833.1	867.2	876.5
42.5°	741.6	755.5	791.2	828.4	837.7
45°	698.1	713.6	750.9	789.6	800.5
47.5°	656.2	668.6	710.5	747.8	763.3
50°	611.2	623.7	664.0	705.9	721.4
52.5°	564.7	581.8	625.2	665.5	684.2
55°	519.7	536.8	581.8	622.1	639.2
57.5°	477.8	491.8	538.3	580.2	597.3
60°	432.8	445.2	494.9	539.9	555.4
62.5°	384.7	403.4	454.6	496.4	515.1
65°	341.3	361.5	415.8	456.1	474.7
67.5°	301.0	319.6	372.3	415.8	435.9
70°	254.4	279.2	333.5	377.0	395.6
72.5°	217.2	238.9	294.8	338.2	358.4
75°	173.8	200.1	256.0	299.4	314.9
77.5°	138.1	164.4	217.2	251.3	259.1
80°	100.8	127.2	176.9	193.9	198.6
82.5°	68.3	93.1	127.2	131.9	133.4
85°	41.9	57.4	74.5	74.5	74.5
87.5°	20.2	23.3	26.4	24.8	24.8
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)