

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: P309028

Luminaire Tested: **22FCZ2-34HE-UNV-L82765-S-CP125-W2A-U-5000K**

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: P309028  
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-5000K  
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**

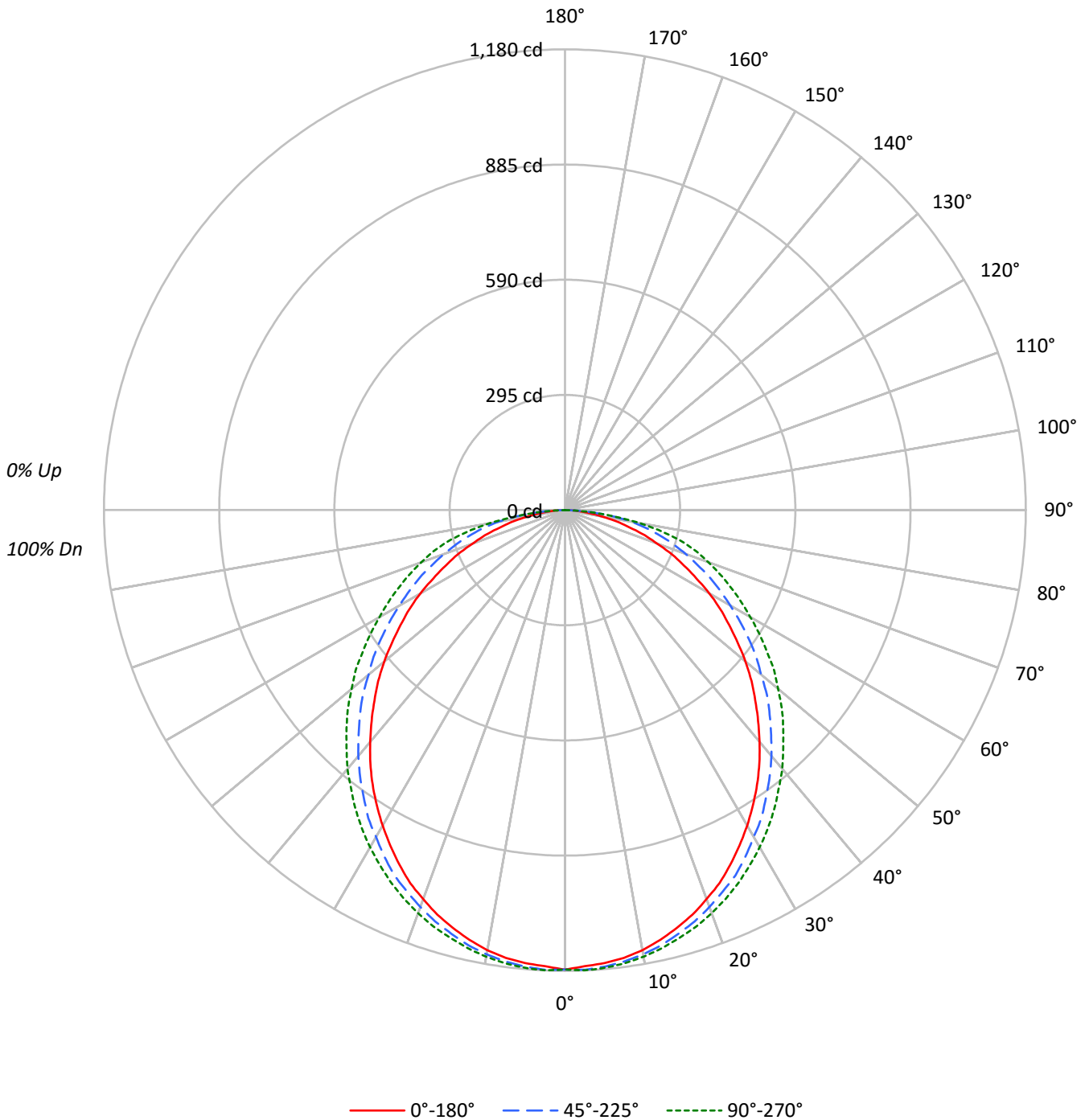
Lumens per Lamp: N/A  
Luminaire Lumens: 3284.0 lumens  
Efficiency: N/A  
Efficacy: 116.5 lumens/watt  
Spacing Criteria (0/90/45): 1.18 / 1.26 / 1.34  
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 28.2  
Input Voltage (V): NR  
Input Current (A<sub>in</sub>): 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°	3167	3167	3167
5°	3146	3170	3179
10°	3128	3157	3174
15°	3086	3129	3159
20°	3036	3098	3146
25°	2975	3066	3125
30°	2899	3004	3100
35°	2819	2950	3071
40°	2723	2890	3041
45°	2624	2822	3009
50°	2527	2745	2983
55°	2408	2696	2962
60°	2301	2631	2952
65°	2146	2614	2986
70°	1977	2592	3074
75°	1784	2628	3234
80°	1543	2707	3039
85°	1278	2269	2269



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	111.3	3.4
10°-20°	316.7	9.6
20°-30°	473.9	14.4
30°-40°	561.2	17.1
40°-50°	571.9	17.4
50°-60°	512.6	15.6
60°-70°	401.3	12.2
70°-80°	258.8	7.9
80°-90°	76.4	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°	901.8	27.5
0°-40°	1463.0	44.5
0°-60°	2547.5	77.6
0°-90°	3284.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3284.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1177	1177	1177	1177	1177	
5°	1164	1168	1174	1175	1177	111
15°	1108	1114	1123	1132	1134	312
25°	1002	1011	1033	1046	1053	461
35°	858	869	898	926	935	536
45°	690	705	742	780	791	532
55°	513	530	575	614	631	460
65°	337	357	411	450	469	335
75°	172	198	253	296	311	184
85°	41	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°	1176.8	1176.8	1176.8	1176.8	1176.8
2.5°	1169.1	1172.2	1178.3	1179.8	1179.8
5°	1164.5	1167.6	1173.7	1175.2	1176.8
7.5°	1156.8	1158.4	1166.0	1169.1	1170.6
10°	1144.6	1147.6	1155.3	1159.9	1161.4
12.5°	1127.7	1132.3	1141.5	1147.6	1149.2
15°	1107.8	1113.9	1123.1	1132.3	1133.9
17.5°	1086.4	1092.5	1104.7	1115.5	1118.5
20°	1060.3	1068.0	1081.8	1094.0	1098.6
22.5°	1034.3	1040.4	1057.2	1072.6	1077.2
25°	1002.1	1011.3	1032.7	1046.5	1052.6
27.5°	968.4	979.1	1000.6	1018.9	1025.1
30°	933.1	943.9	966.8	989.8	997.5
32.5°	896.4	908.6	936.2	959.2	966.8
35°	858.1	868.8	897.9	925.5	934.7
37.5°	818.2	827.4	861.1	890.2	899.4
40°	775.3	787.6	822.8	856.5	865.7
42.5°	732.4	746.2	781.4	818.2	827.4
45°	689.5	704.8	741.6	779.9	790.6
47.5°	648.1	660.4	701.8	738.5	753.9
50°	603.7	616.0	655.8	697.2	712.5
52.5°	557.7	574.6	617.5	657.3	675.7
55°	513.3	530.2	574.6	614.4	631.3
57.5°	471.9	485.7	531.7	573.1	589.9
60°	427.5	439.8	488.8	533.2	548.5
62.5°	380.0	398.4	448.9	490.3	508.7
65°	337.1	357.0	410.6	450.5	468.9
67.5°	297.3	315.6	367.7	410.6	430.6
70°	251.3	275.8	329.4	372.3	390.7
72.5°	214.5	236.0	291.1	334.0	353.9
75°	171.6	197.7	252.8	295.7	311.0
77.5°	136.4	162.4	214.5	248.2	255.9
80°	99.6	125.6	174.7	191.5	196.1
82.5°	67.4	91.9	125.6	130.2	131.8
85°	41.4	56.7	73.5	73.5	73.5
87.5°	19.9	23.0	26.0	24.5	24.5
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)