

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: P307668

Luminaire Tested: **14FCZ2-35-UNV-L82765-CA125-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: P307668
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-CA125-W2A-U-4500K
Description: 1'X4' TROFFER LED MODULE,RIBBED LENS, 0.125" ACRYLIC 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: 3410.0 lumens
Efficiency: N/A
Efficacy: 113.3 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

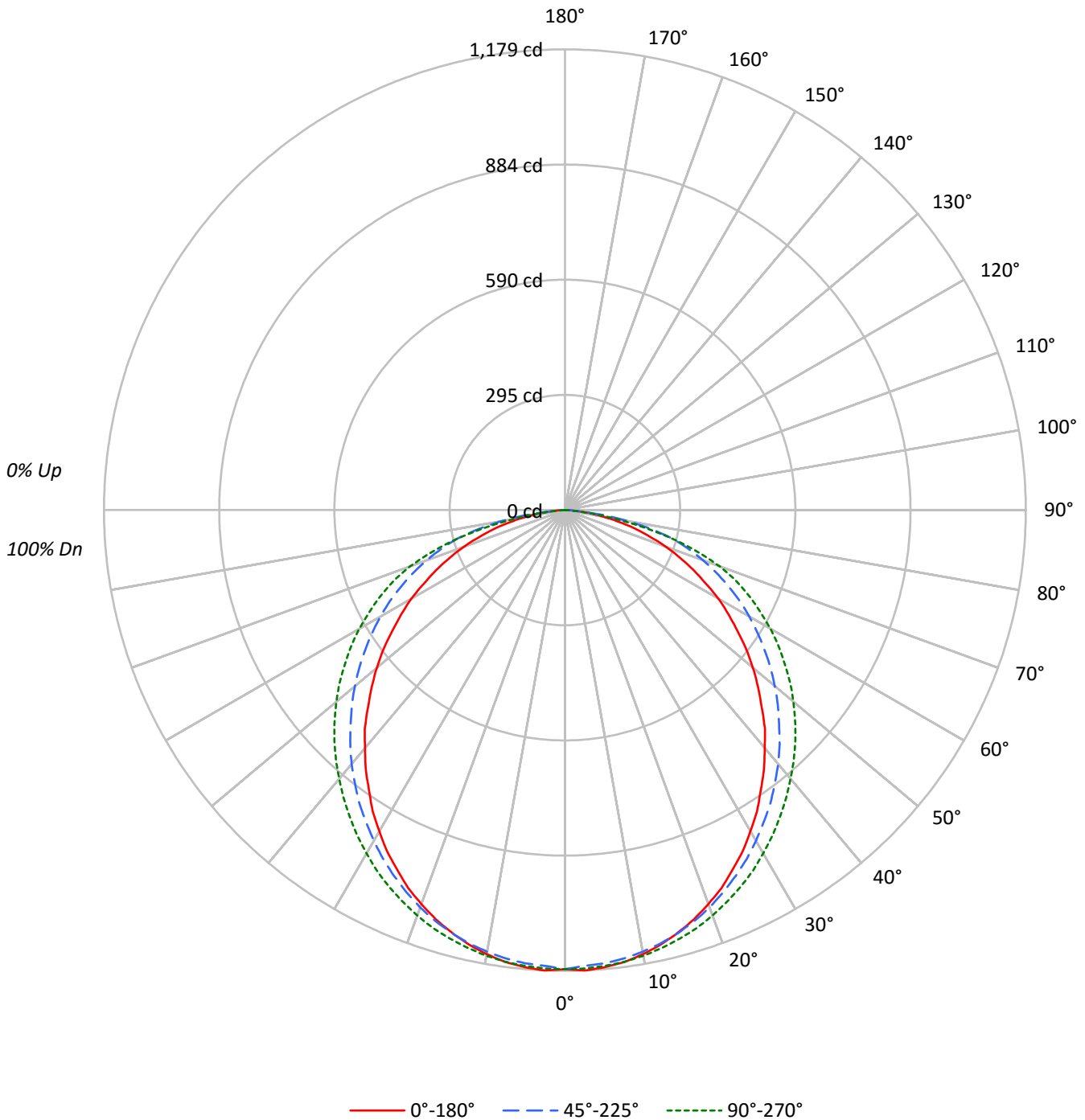
Input Watts (W): 30.1
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	3161	3161	3161
5°	3171	3145	3163
10°	3152	3135	3164
15°	3118	3120	3163
20°	3072	3099	3162
25°	3014	3068	3158
30°	2948	3036	3152
35°	2870	3010	3150
40°	2794	2981	3155
45°	2708	2949	3172
50°	2629	2935	3193
55°	2529	2925	3221
60°	2439	2930	3266
65°	2315	2939	3316
70°	2172	2961	3314
75°	1968	2988	2996
80°	1615	2580	2132
85°	1198	1220	494



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	111.2	3.3
10°-20°	317.5	9.3
20°-30°	478.4	14.0
30°-40°	574.0	16.8
40°-50°	598.3	17.5
50°-60°	553.9	16.2
60°-70°	447.5	13.1
70°-80°	272.9	8.0
80°-90°	56.3	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°	907.1	26.6
0°-40°	1481.1	43.4
0°-60°	2633.3	77.2
0°-90°	3410.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3410.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1175	1175	1175	1175	1175	
5°	1174	1171	1164	1172	1171	111
15°	1119	1120	1120	1135	1135	316
25°	1015	1021	1033	1059	1064	468
35°	874	887	916	950	959	547
45°	712	733	775	818	833	550
55°	539	567	624	672	687	483
65°	364	399	462	508	521	359
75°	189	231	287	292	288	199
85°	39	58	40	22	16	48
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1174.8	1174.8	1174.8	1174.8	1174.8
2.5°	1179.3	1175.5	1167.2	1175.5	1174.0
5°	1174.0	1171.0	1164.1	1172.5	1171.0
7.5°	1166.4	1163.4	1157.3	1167.2	1165.6
10°	1153.5	1151.9	1147.4	1158.8	1158.0
12.5°	1138.3	1137.5	1135.2	1148.1	1147.4
15°	1119.2	1120.0	1120.0	1135.2	1135.2
17.5°	1098.0	1099.5	1102.5	1119.2	1121.5
20°	1072.9	1075.9	1082.0	1101.0	1104.0
22.5°	1047.0	1049.3	1058.4	1081.2	1084.3
25°	1015.1	1021.2	1033.3	1059.2	1063.7
27.5°	984.7	990.0	1006.7	1033.3	1040.9
30°	948.9	957.3	977.1	1006.0	1014.3
32.5°	914.7	923.8	946.6	980.1	987.7
35°	873.7	887.3	916.2	949.7	958.8
37.5°	836.4	849.3	882.0	918.5	929.2
40°	795.3	811.3	848.6	887.3	898.0
42.5°	757.3	772.5	812.8	852.4	866.8
45°	711.7	733.0	774.8	818.1	833.4
47.5°	669.9	691.2	739.1	785.5	799.1
50°	628.1	650.9	701.1	749.0	762.6
52.5°	584.7	609.0	663.0	710.9	726.9
55°	539.1	567.2	623.5	672.2	686.6
57.5°	495.8	524.6	584.7	634.1	648.6
60°	453.2	482.8	544.4	591.6	606.8
62.5°	406.0	441.0	504.9	551.3	562.7
65°	363.5	399.2	461.5	507.9	520.8
67.5°	318.6	357.4	419.7	462.3	474.5
70°	276.0	316.3	376.4	415.9	421.2
72.5°	230.4	271.4	332.3	357.4	357.4
75°	189.3	231.1	287.4	292.0	288.2
77.5°	144.5	190.9	227.3	218.2	209.1
80°	104.2	149.8	166.5	149.8	137.6
82.5°	70.0	108.7	100.4	79.8	70.7
85°	38.8	57.8	39.5	22.1	16.0
87.5°	14.4	12.9	3.8	3.8	3.8
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)