

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: P312261

Luminaire Tested: **14FCZ2-39-UNV-L83050-CP250-W2A-U-3500K**

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: P312261
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: 14FCZ2-39-UNV-L83050-CP250-W2A-U-3500K
Description: 1'X4' TROFFER LED MODULE,RIBBED LENS, 0.250" POLYCARB SHEET
Light Source: (168) 3500K 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: 3450.0 lumens
Efficiency: N/A
Efficacy: 103.6 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

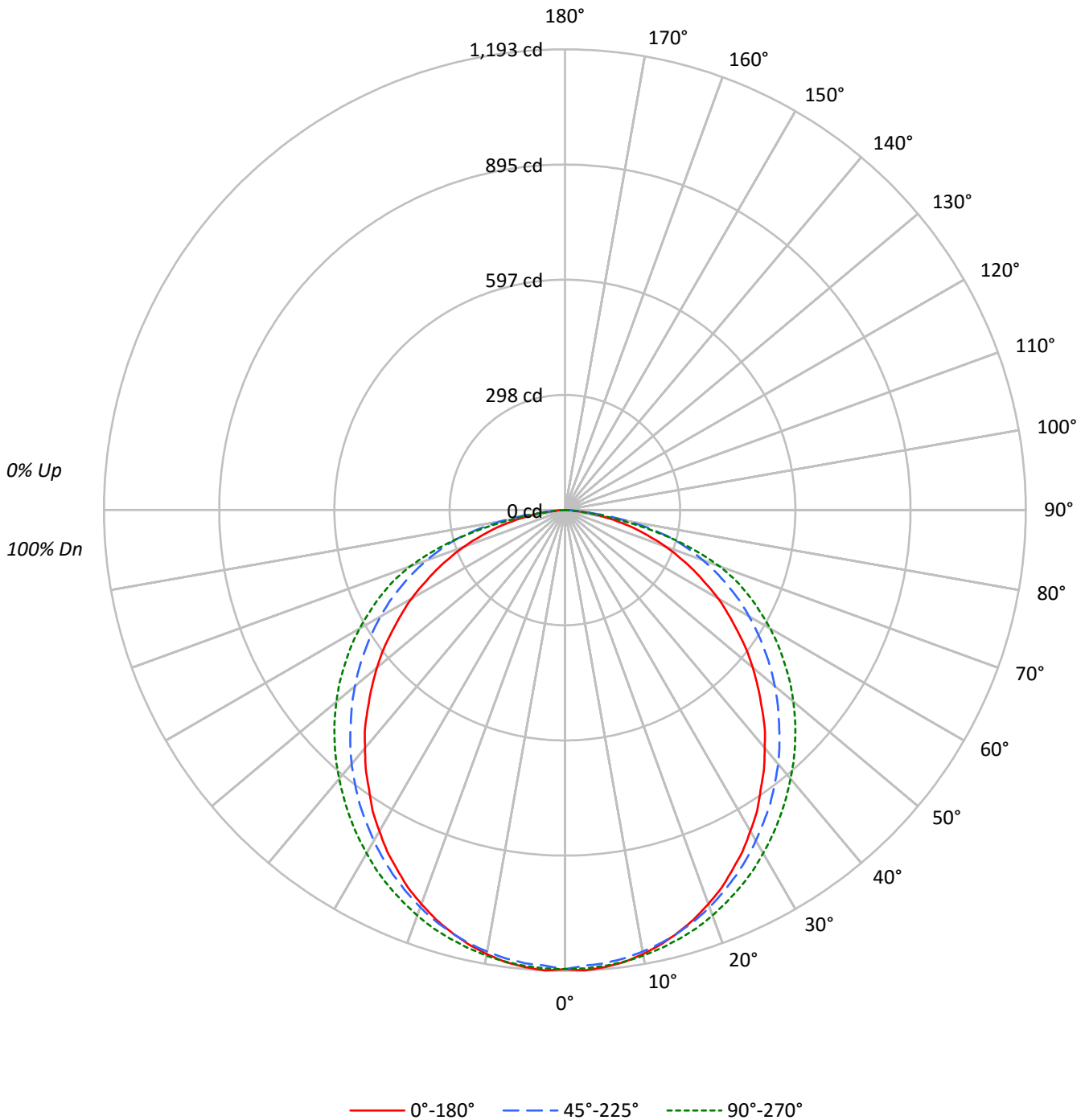
Input Watts (W): 33.3
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	3198	3198	3198
5°	3209	3182	3200
10°	3189	3172	3201
15°	3155	3157	3200
20°	3109	3135	3199
25°	3049	3104	3195
30°	2983	3072	3189
35°	2904	3045	3187
40°	2827	3016	3191
45°	2740	2983	3209
50°	2660	2969	3230
55°	2559	2959	3259
60°	2468	2964	3304
65°	2341	2974	3356
70°	2197	2996	3353
75°	1992	3023	3032
80°	1633	2611	2157
85°	1210	1235	500



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	112.5	3.3
10°-20°	321.3	9.3
20°-30°	484.0	14.0
30°-40°	580.8	16.8
40°-50°	605.3	17.5
50°-60°	560.4	16.2
60°-70°	452.8	13.1
70°-80°	276.1	8.0
80°-90°	57.0	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°	917.7	26.6
0°-40°	1498.5	43.4
0°-60°	2664.2	77.2
0°-90°	3450.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3450.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1188	1188	1188	1188	1188	
5°	1188	1185	1178	1186	1185	113
15°	1132	1133	1133	1148	1148	319
25°	1027	1033	1046	1072	1076	473
35°	884	898	927	961	970	554
45°	720	742	784	828	843	557
55°	545	574	631	680	695	489
65°	368	404	467	514	527	364
75°	192	234	291	295	292	201
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°	1188.5	1188.5	1188.5	1188.5	1188.5
2.5°	1193.2	1189.3	1180.8	1189.3	1187.8
5°	1187.8	1184.7	1177.8	1186.2	1184.7
7.5°	1180.1	1177.0	1170.8	1180.8	1179.3
10°	1167.0	1165.5	1160.8	1172.4	1171.6
12.5°	1151.6	1150.8	1148.5	1161.6	1160.8
15°	1132.4	1133.1	1133.1	1148.5	1148.5
17.5°	1110.8	1112.4	1115.5	1132.4	1134.7
20°	1085.5	1088.5	1094.7	1113.9	1117.0
22.5°	1059.3	1061.6	1070.8	1093.9	1097.0
25°	1027.0	1033.1	1045.5	1071.6	1076.2
27.5°	996.2	1001.6	1018.5	1045.5	1053.1
30°	960.1	968.5	988.5	1017.8	1026.2
32.5°	925.4	934.7	957.8	991.6	999.3
35°	883.9	897.7	927.0	960.8	970.1
37.5°	846.2	859.3	892.4	929.3	940.1
40°	804.7	820.8	858.5	897.7	908.5
42.5°	766.2	781.6	822.4	862.4	877.0
45°	720.0	741.6	783.9	827.7	843.1
47.5°	677.7	699.3	747.7	794.7	808.5
50°	635.4	658.5	709.3	757.7	771.6
52.5°	591.6	616.2	670.8	719.3	735.4
55°	545.4	573.9	630.8	680.0	694.7
57.5°	501.6	530.8	591.6	641.6	656.2
60°	458.5	488.5	550.8	598.5	613.9
62.5°	410.8	446.2	510.8	557.7	569.3
65°	367.7	403.9	467.0	513.9	527.0
67.5°	322.3	361.6	424.6	467.7	480.0
70°	279.2	320.0	380.8	420.8	426.2
72.5°	233.1	274.6	336.2	361.6	361.6
75°	191.6	233.9	290.8	295.4	291.6
77.5°	146.2	193.1	230.0	220.8	211.6
80°	105.4	151.5	168.5	151.5	139.2
82.5°	70.8	110.0	101.5	80.8	71.5
85°	39.2	58.5	40.0	22.3	16.2
87.5°	14.6	13.1	3.8	3.8	3.8
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)