

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: P312372

Luminaire Tested: **14FCZ2-35-UNV-L83050-S-CA125-W2A-U-4000K**

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: P312372
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-L83050-S-CA125-W2A-U-4000K
Description: 1'X4' TROFFER LED MODULE,SMOOTH LENS,0.125" ACRYLIC SHEET
Light Source: (168) 4000K 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: 3562.0 lumens
Efficiency: N/A
Efficacy: 117.9 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

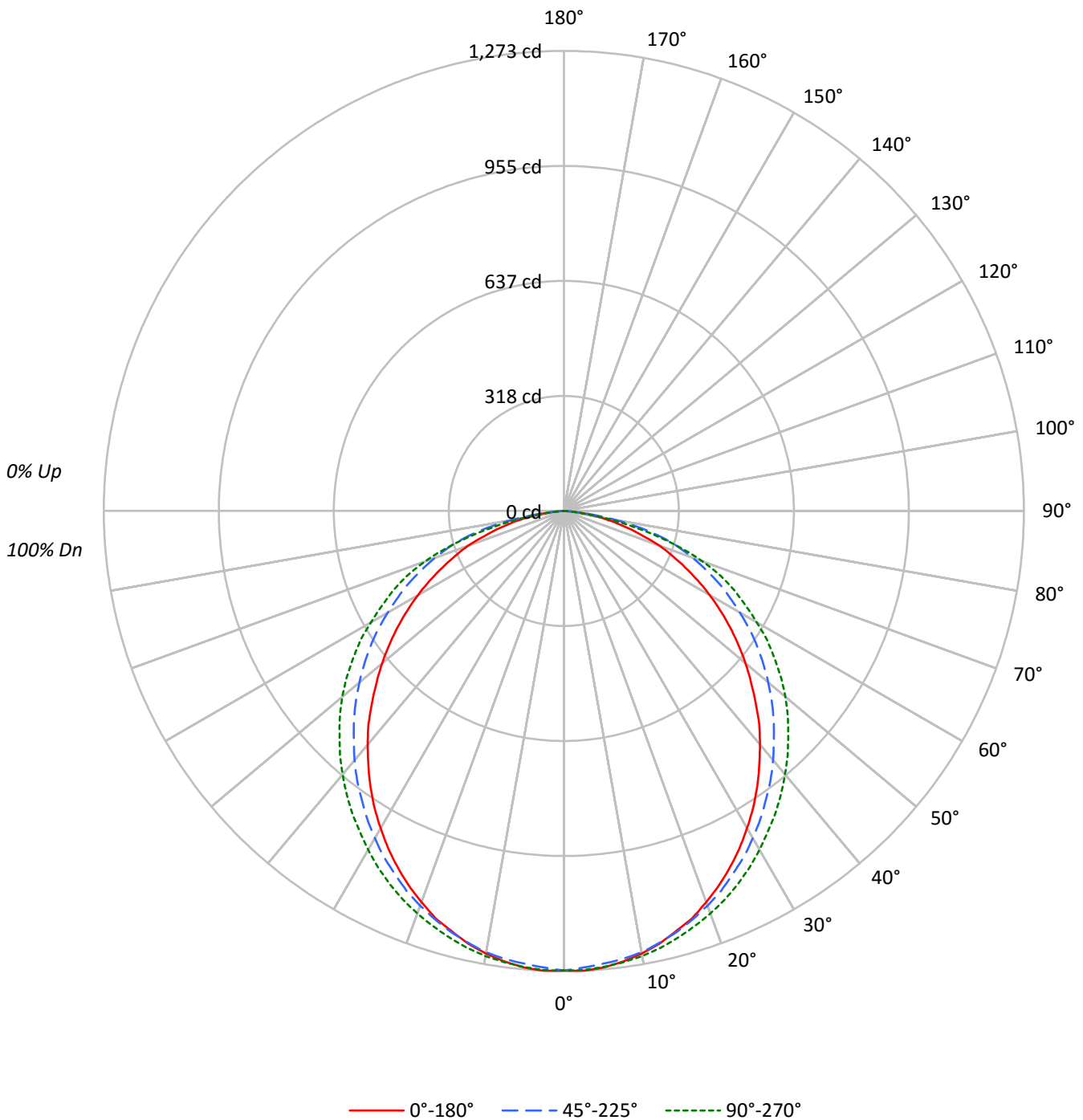
Input Watts (W): 30.2
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	100	96	106	102	98	94	97	94	91	94	91	89	90	88	86	84
2	99	90	84	78	96	89	82	77	85	80	75	82	77	73	79	75	72	70
3	90	79	71	65	87	78	70	64	75	68	63	72	66	62	69	65	61	58
4	82	70	61	55	80	69	61	54	66	59	53	64	58	53	62	56	52	50
5	76	63	54	47	74	62	53	47	59	52	46	57	51	46	56	50	45	43
6	70	56	47	41	68	55	47	41	54	46	40	52	45	40	50	44	40	38
7	65	51	42	36	63	50	42	36	49	41	36	47	41	35	46	40	35	33
8	60	47	38	32	59	46	38	32	45	37	32	43	37	32	42	36	32	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	52	39	31	26	38	31	26	37	31	26	36	30	26	24

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	3422	3422	3422
5°	3425	3397	3421
10°	3397	3388	3417
15°	3351	3360	3405
20°	3298	3328	3393
25°	3230	3288	3382
30°	3150	3249	3364
35°	3063	3203	3353
40°	2966	3164	3344
45°	2856	3125	3340
50°	2750	3090	3349
55°	2635	3065	3339
60°	2509	3023	3317
65°	2362	3014	3317
70°	2223	2987	3223
75°	1928	2920	2754
80°	1561	2354	1833
85°	1037	818	546



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	120.1	3.4
10°-20°	341.7	9.6
20°-30°	512.5	14.4
30°-40°	611.4	17.2
40°-50°	632.1	17.7
50°-60°	577.1	16.2
60°-70°	454.1	12.7
70°-80°	264.3	7.4
80°-90°	48.7	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°	974.3	27.4
0°-40°	1585.7	44.5
0°-60°	2794.8	78.5
0°-90°	3562.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3562.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1272	1272	1272	1272	1272	
5°	1268	1264	1257	1268	1266	120
15°	1203	1204	1206	1222	1222	339
25°	1088	1093	1107	1134	1139	501
35°	932	945	975	1012	1021	583
45°	751	775	821	867	878	580
55°	562	592	653	701	712	502
65°	371	410	473	510	521	368
75°	185	230	281	276	265	197
85°	34	48	26	21	18	43
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1271.6	1271.6	1271.6	1271.6	1271.6
2.5°	1273.3	1269.8	1264.5	1273.3	1271.6
5°	1268.0	1264.5	1257.4	1268.0	1266.3
7.5°	1257.4	1253.9	1250.4	1261.0	1259.2
10°	1243.3	1241.6	1239.8	1252.1	1250.4
12.5°	1225.7	1225.7	1223.9	1238.0	1238.0
15°	1202.7	1204.5	1206.2	1222.1	1222.1
17.5°	1181.5	1179.7	1185.0	1202.7	1204.5
20°	1151.5	1155.0	1162.1	1183.3	1185.0
22.5°	1121.5	1125.0	1137.4	1158.5	1163.8
25°	1087.9	1093.2	1107.3	1133.8	1139.1
27.5°	1052.6	1059.6	1079.1	1107.3	1112.6
30°	1013.7	1024.3	1045.5	1077.3	1082.6
32.5°	974.9	985.5	1012.0	1043.8	1050.8
35°	932.5	944.9	974.9	1012.0	1020.8
37.5°	888.3	904.2	939.6	976.6	987.2
40°	844.2	861.8	900.7	939.6	951.9
42.5°	800.0	817.7	860.1	904.2	916.6
45°	750.6	775.3	821.2	867.1	877.7
47.5°	702.9	729.4	780.6	826.5	840.7
50°	657.0	683.5	738.2	785.9	800.0
52.5°	609.3	637.6	695.8	745.3	757.6
55°	561.6	591.6	653.4	701.1	711.7
57.5°	513.9	545.7	609.3	655.2	667.6
60°	466.2	499.8	561.6	607.5	616.4
62.5°	418.6	453.9	517.5	558.1	566.9
65°	370.9	409.7	473.3	510.4	521.0
67.5°	325.0	363.8	425.6	460.9	469.8
70°	282.6	317.9	379.7	406.2	409.7
72.5°	229.6	273.7	333.8	347.9	339.1
75°	185.4	229.6	280.8	275.5	264.9
77.5°	141.3	185.4	219.0	201.3	187.2
80°	100.7	144.8	151.9	125.4	118.3
82.5°	65.3	100.7	84.8	65.3	53.0
85°	33.6	47.7	26.5	21.2	17.7
87.5°	10.6	7.1	3.5	3.5	1.8
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)