

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: P307977

Luminaire Tested: **14FCZ2-39-UNV-L82765-S-CA08-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: P307977
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: 14FCZ2-39-UNV-L82765-S-CA08-W2A-U-5700K
Description: 1'X4' TROFFER LED MODULE,SMOOTH LENS, 0.08" ACRYLIC SHEET
Light Source: (168) 5700K 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: 3916.0 lumens
Efficiency: N/A
Efficacy: 114.5 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

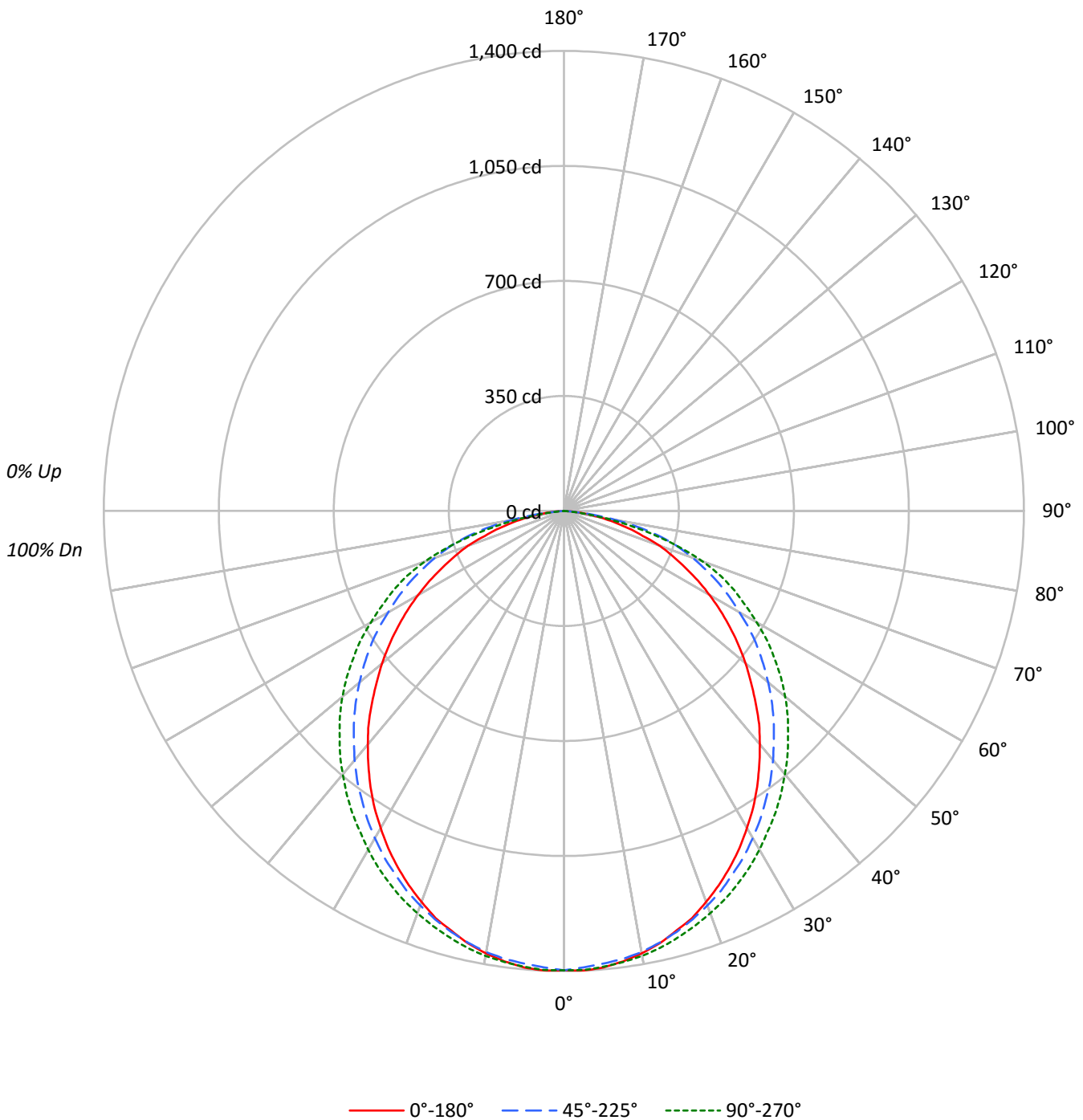
Input Watts (W): 34.2
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	3762	3762	3762
5°	3766	3734	3760
10°	3735	3724	3756
15°	3684	3694	3743
20°	3625	3659	3731
25°	3551	3615	3718
30°	3463	3572	3698
35°	3368	3521	3687
40°	3260	3478	3676
45°	3140	3436	3672
50°	3024	3398	3682
55°	2897	3370	3671
60°	2759	3323	3647
65°	2596	3313	3647
70°	2445	3284	3544
75°	2120	3210	3028
80°	1715	2588	2016
85°	1139	898	599



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	132.0	3.4
10°-20°	375.6	9.6
20°-30°	563.5	14.4
30°-40°	672.2	17.2
40°-50°	694.9	17.7
50°-60°	634.4	16.2
60°-70°	499.3	12.7
70°-80°	290.6	7.4
80°-90°	53.5	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°	1071.1	27.4
0°-40°	1743.3	44.5
0°-60°	3072.6	78.5
0°-90°	3916.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3916.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1398	1398	1398	1398	1398	
5°	1394	1390	1382	1394	1392	132
15°	1322	1324	1326	1344	1344	373
25°	1196	1202	1217	1246	1252	551
35°	1025	1039	1072	1112	1122	641
45°	825	852	903	953	965	637
55°	617	650	718	771	782	552
65°	408	450	520	561	573	405
75°	204	252	309	303	291	217
85°	37	52	29	23	19	48
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1397.9	1397.9	1397.9	1397.9	1397.9
2.5°	1399.9	1396.0	1390.2	1399.9	1397.9
5°	1394.1	1390.2	1382.4	1394.1	1392.1
7.5°	1382.4	1378.5	1374.6	1386.3	1384.4
10°	1366.9	1364.9	1363.0	1376.6	1374.6
12.5°	1347.5	1347.5	1345.5	1361.1	1361.1
15°	1322.2	1324.2	1326.1	1343.6	1343.6
17.5°	1298.9	1297.0	1302.8	1322.2	1324.2
20°	1265.9	1269.8	1277.6	1300.9	1302.8
22.5°	1232.9	1236.8	1250.4	1273.7	1279.5
25°	1196.0	1201.8	1217.4	1246.5	1252.3
27.5°	1157.2	1165.0	1186.3	1217.4	1223.2
30°	1114.5	1126.1	1149.4	1184.4	1190.2
32.5°	1071.8	1083.4	1112.5	1147.5	1155.2
35°	1025.2	1038.8	1071.8	1112.5	1122.2
37.5°	976.6	994.1	1032.9	1073.7	1085.4
40°	928.1	947.5	990.2	1032.9	1046.5
42.5°	879.5	899.0	945.6	994.1	1007.7
45°	825.2	852.4	902.8	953.3	965.0
47.5°	772.8	801.9	858.2	908.7	924.2
50°	722.3	751.4	811.6	864.0	879.5
52.5°	669.8	700.9	765.0	819.4	832.9
55°	617.4	650.4	718.4	770.8	782.5
57.5°	565.0	600.0	669.8	720.3	733.9
60°	512.6	549.5	617.4	667.9	677.6
62.5°	460.2	499.0	568.9	613.5	623.3
65°	407.7	450.4	520.3	561.1	572.8
67.5°	357.3	400.0	467.9	506.8	516.5
70°	310.7	349.5	417.4	446.6	450.4
72.5°	252.4	300.9	367.0	382.5	372.8
75°	203.9	252.4	308.7	302.9	291.2
77.5°	155.3	203.9	240.8	221.3	205.8
80°	110.7	159.2	167.0	137.9	130.1
82.5°	71.8	110.7	93.2	71.8	58.2
85°	36.9	52.4	29.1	23.3	19.4
87.5°	11.6	7.8	3.9	3.9	1.9
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)