

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: P307976

Luminaire Tested: **14FCZ2-39-UNV-L82765-S-CA08-W2A-U-5500K**

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: P307976
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-5500K
Description: 1'X4' TROFFER LED MODULE,SMOOTH LENS, 0.08" ACRYLIC SHEET
Light Source: (168) 5500K 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: 3906.0 lumens
Efficiency: N/A
Efficacy: 114.2 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

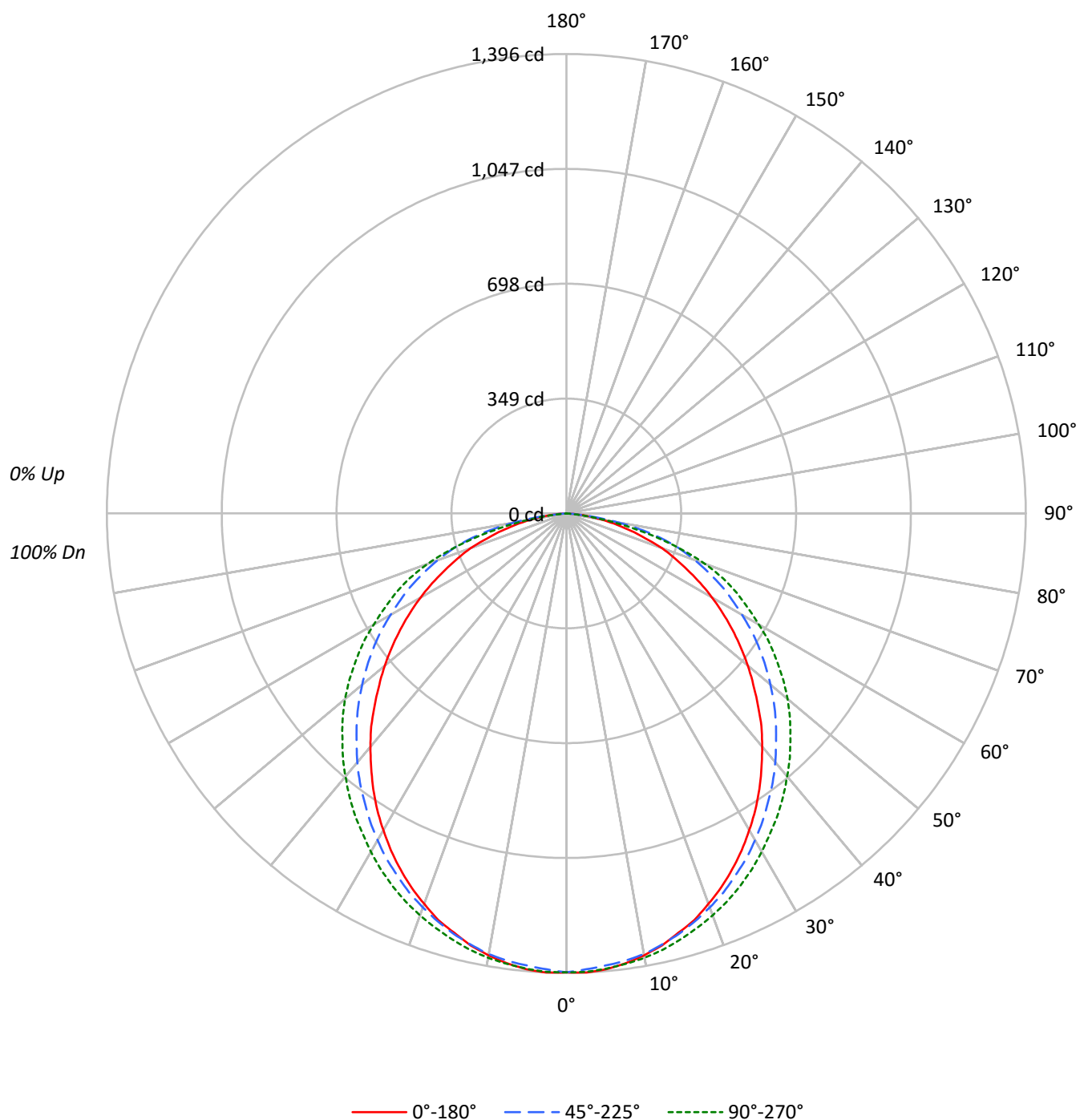
Input Watts (W): 34.2
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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					0
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	50	30	10
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°	3752	3752	3752
5°	3756	3725	3751
10°	3725	3715	3747
15°	3674	3685	3734
20°	3616	3649	3721
25°	3542	3605	3709
30°	3454	3562	3689
35°	3359	3512	3677
40°	3252	3470	3667
45°	3132	3427	3663
50°	3016	3389	3673
55°	2889	3362	3662
60°	2752	3314	3638
65°	2590	3305	3638
70°	2438	3276	3535
75°	2114	3201	3020
80°	1711	2582	2011
85°	1136	895	599



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	131.7	3.4
10°-20°	374.7	9.6
20°-30°	562.0	14.4
30°-40°	670.4	17.2
40°-50°	693.1	17.7
50°-60°	632.8	16.2
60°-70°	498.0	12.7
70°-80°	289.9	7.4
80°-90°	53.4	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°	1068.4	27.4
0°-40°	1738.8	44.5
0°-60°	3064.7	78.5
0°-90°	3906.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3906.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1394	1394	1394	1394	1394	
5°	1390	1387	1379	1390	1389	132
15°	1319	1321	1323	1340	1340	372
25°	1193	1199	1214	1243	1249	549
35°	1022	1036	1069	1110	1119	639
45°	823	850	900	951	962	636
55°	616	649	717	769	780	551
65°	407	449	519	560	571	404
75°	203	252	308	302	290	216
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°	1394.4	1394.4	1394.4	1394.4	1394.4
2.5°	1396.3	1392.4	1386.6	1396.3	1394.4
5°	1390.5	1386.6	1378.9	1390.5	1388.6
7.5°	1378.9	1375.0	1371.1	1382.8	1380.8
10°	1363.4	1361.5	1359.5	1373.1	1371.1
12.5°	1344.0	1344.0	1342.1	1357.6	1357.6
15°	1318.8	1320.8	1322.7	1340.2	1340.2
17.5°	1295.6	1293.7	1299.5	1318.8	1320.8
20°	1262.7	1266.6	1274.3	1297.5	1299.5
22.5°	1229.8	1233.6	1247.2	1270.4	1276.2
25°	1193.0	1198.8	1214.3	1243.3	1249.1
27.5°	1154.2	1162.0	1183.3	1214.3	1220.1
30°	1111.6	1123.2	1146.5	1181.3	1187.2
32.5°	1069.0	1080.6	1109.7	1144.6	1152.3
35°	1022.5	1036.1	1069.0	1109.7	1119.4
37.5°	974.1	991.6	1030.3	1071.0	1082.6
40°	925.7	945.1	987.7	1030.3	1043.8
42.5°	877.3	896.7	943.1	991.6	1005.1
45°	823.1	850.2	900.5	950.9	962.5
47.5°	770.8	799.8	856.0	906.3	921.8
50°	720.4	749.5	809.5	861.8	877.3
52.5°	668.1	699.1	763.0	817.3	830.8
55°	615.8	648.8	716.6	768.8	780.5
57.5°	563.6	598.4	668.1	718.5	732.0
60°	511.3	548.1	615.8	666.2	675.9
62.5°	459.0	497.7	567.4	612.0	621.7
65°	406.7	449.3	519.0	559.7	571.3
67.5°	356.3	398.9	466.7	505.5	515.1
70°	309.9	348.6	416.4	445.4	449.3
72.5°	251.8	300.2	366.0	381.5	371.8
75°	203.3	251.8	307.9	302.1	290.5
77.5°	154.9	203.3	240.1	220.8	205.3
80°	110.4	158.8	166.6	137.5	129.8
82.5°	71.7	110.4	93.0	71.7	58.1
85°	36.8	52.3	29.0	23.2	19.4
87.5°	11.6	7.7	3.9	3.9	1.9
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)