

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: P307978

Luminaire Tested: **14FCZ2-39-UNV-L82765-S-CA08-W2A-U-6500K**

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: P307978
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-6500K
Description: 1'X4' TROFFER LED MODULE,SMOOTH LENS, 0.08" ACRYLIC SHEET
Light Source: (168) 6500K 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: 3927.0 lumens
Efficiency: N/A
Efficacy: 112.8 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

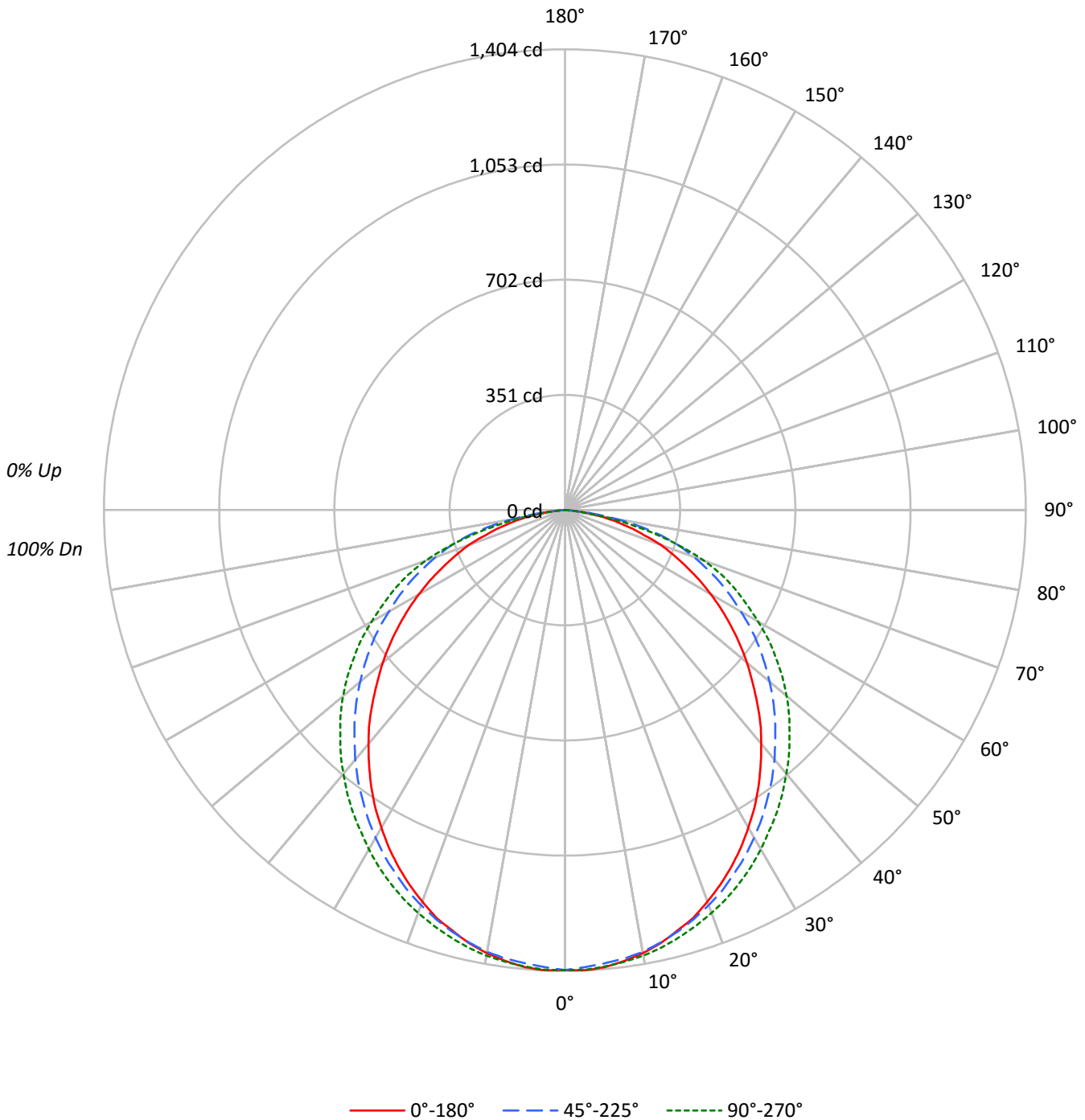
Input Watts (W): 34.8
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	3772	3772	3772
5°	3776	3745	3771
10°	3745	3735	3767
15°	3694	3705	3754
20°	3635	3669	3741
25°	3561	3625	3729
30°	3473	3582	3709
35°	3377	3531	3697
40°	3269	3488	3687
45°	3149	3446	3683
50°	3032	3407	3692
55°	2905	3380	3681
60°	2766	3333	3657
65°	2604	3323	3657
70°	2451	3294	3554
75°	2125	3219	3037
80°	1720	2594	2022
85°	1142	902	602



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	132.4	3.4
10°-20°	376.7	9.6
20°-30°	565.0	14.4
30°-40°	674.1	17.2
40°-50°	696.8	17.7
50°-60°	636.2	16.2
60°-70°	500.7	12.7
70°-80°	291.4	7.4
80°-90°	53.7	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°	1074.1	27.4
0°-40°	1748.2	44.5
0°-60°	3081.2	78.5
0°-90°	3927.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3927.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1402	1402	1402	1402	1402	
5°	1398	1394	1386	1398	1396	133
15°	1326	1328	1330	1347	1347	374
25°	1199	1205	1221	1250	1256	552
35°	1028	1042	1075	1116	1125	643
45°	828	855	905	956	968	639
55°	619	652	720	773	785	554
65°	409	452	522	563	574	406
75°	204	253	310	304	292	217
85°	37	53	29	23	20	48
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1401.9	1401.9	1401.9	1401.9	1401.9
2.5°	1403.8	1399.9	1394.1	1403.8	1401.9
5°	1398.0	1394.1	1386.3	1398.0	1396.0
7.5°	1386.3	1382.4	1378.5	1390.2	1388.2
10°	1370.7	1368.8	1366.8	1380.5	1378.5
12.5°	1351.3	1351.3	1349.3	1364.9	1364.9
15°	1325.9	1327.9	1329.8	1347.4	1347.4
17.5°	1302.6	1300.6	1306.5	1325.9	1327.9
20°	1269.5	1273.4	1281.2	1304.5	1306.5
22.5°	1236.4	1240.3	1253.9	1277.3	1283.1
25°	1199.4	1205.2	1220.8	1250.0	1255.8
27.5°	1160.4	1168.2	1189.6	1220.8	1226.6
30°	1117.6	1129.3	1152.7	1187.7	1193.5
32.5°	1074.8	1086.5	1115.7	1150.7	1158.5
35°	1028.0	1041.7	1074.8	1115.7	1125.4
37.5°	979.4	996.9	1035.8	1076.7	1088.4
40°	930.7	950.2	993.0	1035.8	1049.5
42.5°	882.0	901.5	948.2	996.9	1010.5
45°	827.5	854.8	905.4	956.0	967.7
47.5°	774.9	804.1	860.6	911.2	926.8
50°	724.3	753.5	813.9	866.4	882.0
52.5°	671.7	702.9	767.1	821.7	835.3
55°	619.2	652.3	720.4	773.0	784.7
57.5°	566.6	601.6	671.7	722.4	736.0
60°	514.0	551.0	619.2	669.8	679.5
62.5°	461.5	500.4	570.5	615.3	625.0
65°	408.9	451.7	521.8	562.7	574.4
67.5°	358.3	401.1	469.2	508.2	517.9
70°	311.5	350.5	418.6	447.8	451.7
72.5°	253.1	301.8	368.0	383.6	373.8
75°	204.4	253.1	309.6	303.7	292.1
77.5°	155.8	204.4	241.4	222.0	206.4
80°	111.0	159.7	167.4	138.2	130.5
82.5°	72.0	111.0	93.5	72.0	58.4
85°	37.0	52.6	29.2	23.4	19.5
87.5°	11.7	7.8	3.9	3.9	1.9
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)