

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: P307971

Luminaire Tested: **14FCZ2-39-UNV-L82765-S-CA08-W2A-U-3000K**

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: P307971
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-3000K
Description: 1'X4' TROFFER LED MODULE,SMOOTH LENS, 0.08" ACRYLIC SHEET
Light Source: (168) 3000K 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: 3547.0 lumens
Efficiency: N/A
Efficacy: 107.2 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

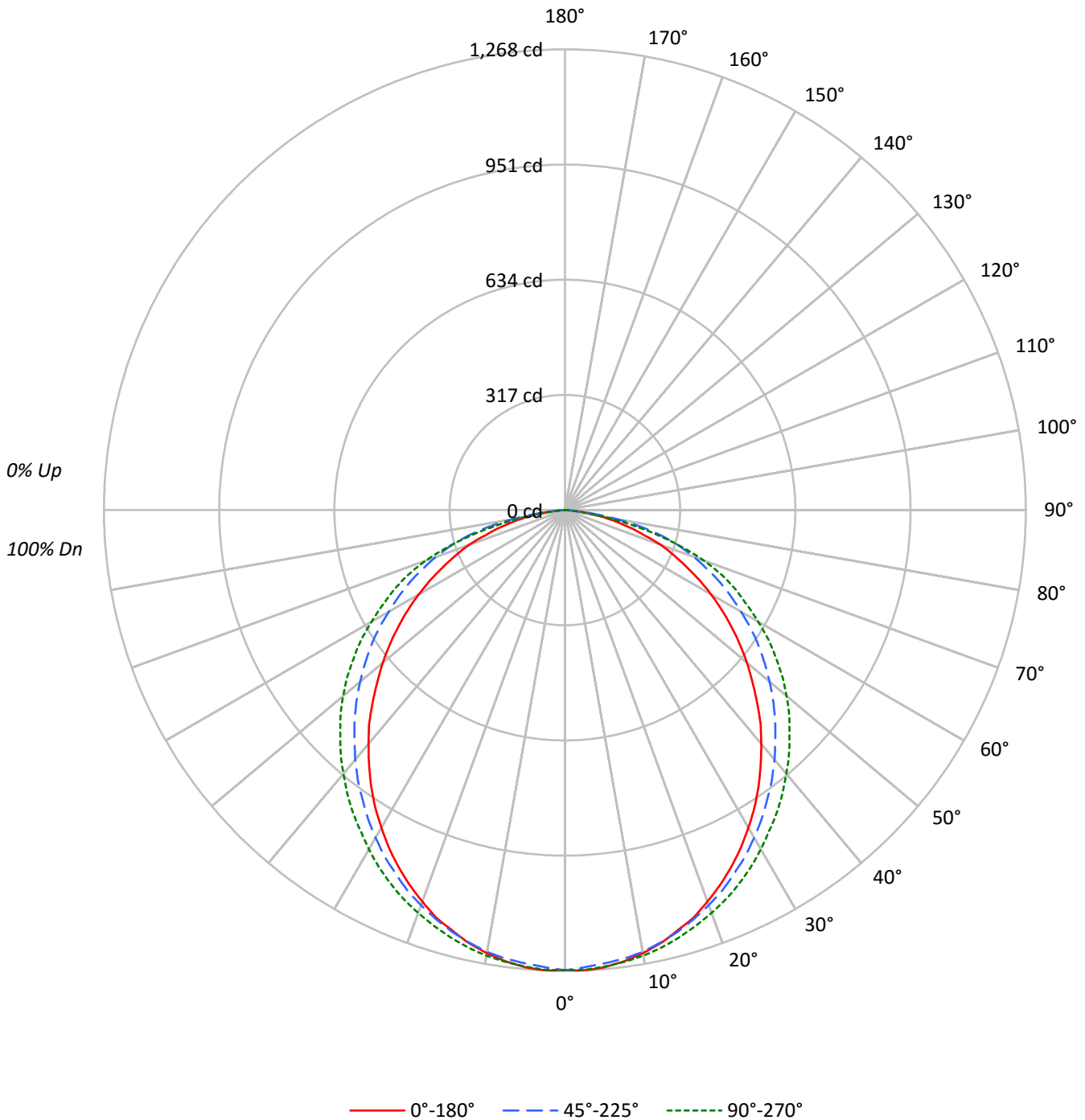
Input Watts (W): 33.1
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	3407	3407	3407
5°	3411	3383	3406
10°	3383	3374	3402
15°	3336	3346	3390
20°	3283	3314	3379
25°	3216	3274	3368
30°	3137	3235	3350
35°	3051	3189	3339
40°	2953	3151	3330
45°	2844	3112	3326
50°	2739	3077	3335
55°	2624	3053	3325
60°	2499	3010	3303
65°	2351	3001	3303
70°	2214	2975	3210
75°	1920	2907	2743
80°	1553	2343	1826
85°	1031	815	543



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	119.6	3.4
10°-20°	340.2	9.6
20°-30°	510.4	14.4
30°-40°	608.8	17.2
40°-50°	629.4	17.7
50°-60°	574.6	16.2
60°-70°	452.2	12.7
70°-80°	263.2	7.4
80°-90°	48.5	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°	970.2	27.4
0°-40°	1579.0	44.5
0°-60°	2783.0	78.5
0°-90°	3547.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3547.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1266	1266	1266	1266	1266	
5°	1263	1259	1252	1263	1261	120
15°	1198	1199	1201	1217	1217	338
25°	1083	1089	1103	1129	1134	499
35°	929	941	971	1008	1016	580
45°	747	772	818	864	874	577
55°	559	589	651	698	709	500
65°	369	408	471	508	519	367
75°	185	229	280	274	264	196
85°	33	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°	1266.2	1266.2	1266.2	1266.2	1266.2
2.5°	1268.0	1264.5	1259.2	1268.0	1266.2
5°	1262.7	1259.2	1252.2	1262.7	1260.9
7.5°	1252.2	1248.6	1245.1	1255.7	1253.9
10°	1238.1	1236.3	1234.6	1246.9	1245.1
12.5°	1220.5	1220.5	1218.7	1232.8	1232.8
15°	1197.6	1199.4	1201.2	1217.0	1217.0
17.5°	1176.5	1174.8	1180.0	1197.6	1199.4
20°	1146.6	1150.1	1157.2	1178.3	1180.0
22.5°	1116.7	1120.3	1132.6	1153.7	1158.9
25°	1083.3	1088.6	1102.7	1129.0	1134.3
27.5°	1048.1	1055.2	1074.5	1102.7	1107.9
30°	1009.5	1020.0	1041.1	1072.8	1078.0
32.5°	970.8	981.3	1007.7	1039.4	1046.4
35°	928.6	940.9	970.8	1007.7	1016.5
37.5°	884.6	900.4	935.6	972.5	983.1
40°	840.6	858.2	896.9	935.6	947.9
42.5°	796.7	814.2	856.5	900.4	912.7
45°	747.4	772.0	817.8	863.5	874.0
47.5°	699.9	726.3	777.3	823.0	837.1
50°	654.2	680.6	735.1	782.6	796.7
52.5°	606.7	634.9	692.9	742.1	754.5
55°	559.2	589.1	650.7	698.2	708.7
57.5°	511.8	543.4	606.7	652.5	664.8
60°	464.3	497.7	559.2	605.0	613.8
62.5°	416.8	452.0	515.3	555.7	564.5
65°	369.3	408.0	471.3	508.2	518.8
67.5°	323.6	362.3	423.8	459.0	467.8
70°	281.4	316.6	378.1	404.5	408.0
72.5°	228.6	272.6	332.4	346.5	337.7
75°	184.7	228.6	279.6	274.3	263.8
77.5°	140.7	184.7	218.1	200.5	186.4
80°	100.2	144.2	151.2	124.9	117.8
82.5°	65.1	100.2	84.4	65.1	52.8
85°	33.4	47.5	26.4	21.1	17.6
87.5°	10.6	7.0	3.5	3.5	1.8
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)