

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: P308018

Luminaire Tested: **14FCZ2-44-UNV-L82765-S-CA08-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: P308018
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: 14FCZ2-44-UNV-L82765-S-CA08-W2A-U-4000K
Description: 1'X4' TROFFER LED MODULE,SMOOTH LENS, 0.08" 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: 4192.0 lumens
Efficiency: N/A
Efficacy: 108.3 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

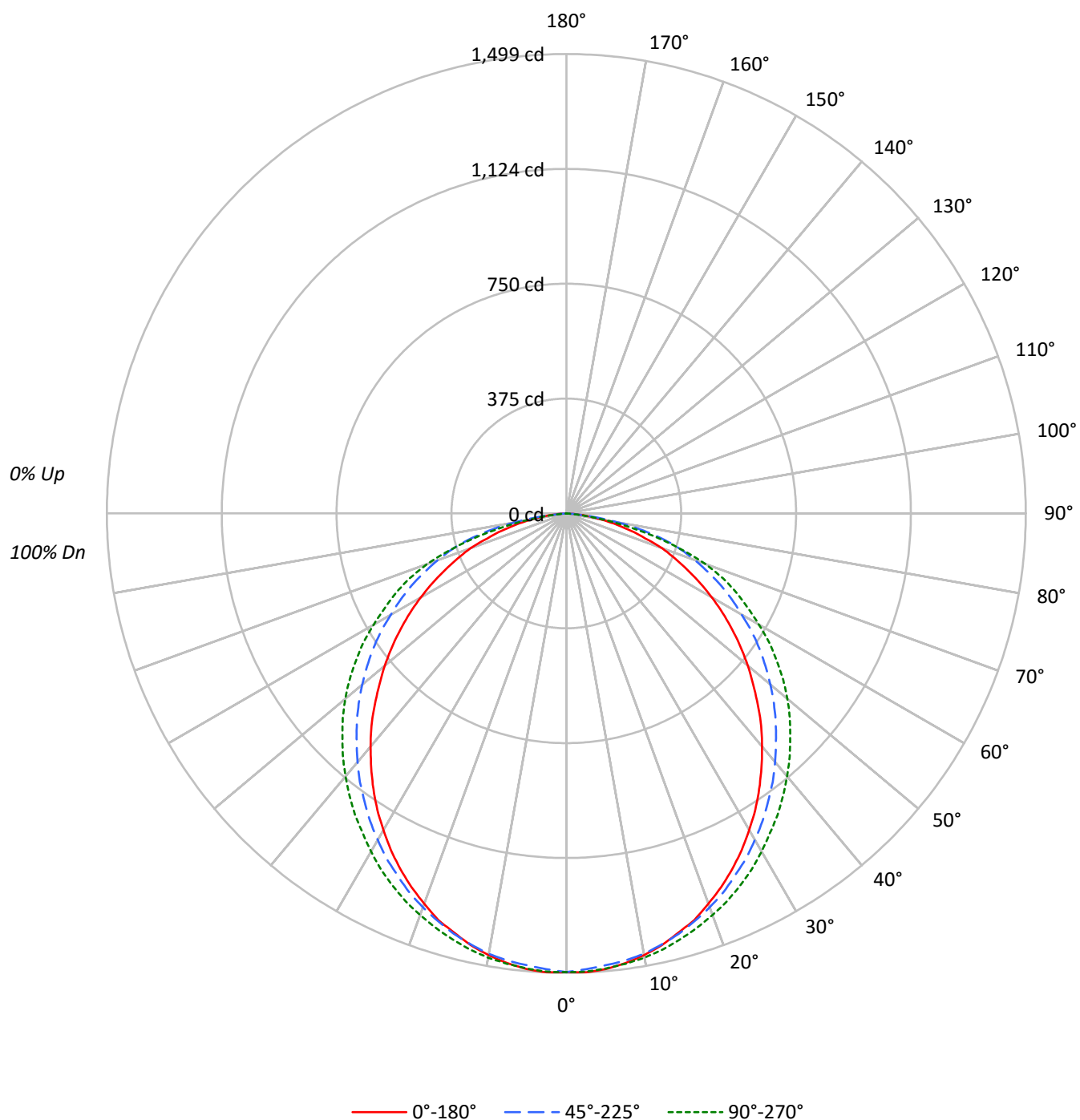
Input Watts (W): 38.7
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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		0
RCR																	
0	119	119	119	119	116	116	116	116	111	111	111		106	106	106		100
1	109	104	100	96	106	102	98	94	97	94	91		94	91	89		84
2	99	90	84	78	96	89	82	77	85	80	75		82	77	73		70
3	90	79	71	65	87	78	70	64	75	68	63		72	66	62		58
4	82	70	61	55	80	69	61	54	66	59	53		64	58	53		50
5	76	63	54	47	74	62	53	47	59	52	46		57	51	46		43
6	70	56	47	41	68	55	47	41	54	46	40		52	45	40		38
7	65	51	42	36	63	50	42	36	49	41	36		47	41	35		33
8	60	47	38	32	59	46	38	32	45	37	32		43	37	32		30
9	56	43	35	29	55	42	34	29	41	34	29		40	33	29		27
10	53	40	32	26	52	39	31	26	38	31	26		37	31	26		24

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	4027	4027	4027
5°	4031	3997	4025
10°	3998	3987	4021
15°	3943	3955	4007
20°	3881	3916	3994
25°	3801	3869	3980
30°	3707	3823	3959
35°	3605	3769	3946
40°	3490	3724	3935
45°	3362	3678	3931
50°	3237	3637	3942
55°	3101	3608	3930
60°	2953	3557	3904
65°	2779	3547	3904
70°	2616	3516	3794
75°	2269	3436	3242
80°	1836	2769	2159
85°	1220	963	642



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	141.3	3.4
10°-20°	402.1	9.6
20°-30°	603.2	14.4
30°-40°	719.5	17.2
40°-50°	743.9	17.7
50°-60°	679.1	16.2
60°-70°	534.5	12.7
70°-80°	311.1	7.4
80°-90°	57.3	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°	1146.6	27.4
0°-40°	1866.1	44.5
0°-60°	3289.1	78.5
0°-90°	4192.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4192.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1496	1496	1496	1496	1496	
5°	1492	1488	1480	1492	1490	141
15°	1415	1418	1420	1438	1438	399
25°	1280	1287	1303	1334	1341	589
35°	1097	1112	1147	1191	1201	686
45°	883	912	966	1020	1033	682
55°	661	696	769	825	838	591
65°	436	482	557	601	613	433
75°	218	270	330	324	312	232
85°	40	56	31	25	21	51
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1496.5	1496.5	1496.5	1496.5	1496.5
2.5°	1498.6	1494.4	1488.2	1498.6	1496.5
5°	1492.3	1488.2	1479.8	1492.3	1490.2
7.5°	1479.8	1475.7	1471.5	1484.0	1481.9
10°	1463.2	1461.1	1459.1	1473.6	1471.5
12.5°	1442.4	1442.4	1440.4	1457.0	1457.0
15°	1415.4	1417.5	1419.6	1438.3	1438.3
17.5°	1390.5	1388.4	1394.6	1415.4	1417.5
20°	1355.1	1359.3	1367.6	1392.6	1394.6
22.5°	1319.8	1324.0	1338.5	1363.5	1369.7
25°	1280.3	1286.6	1303.2	1334.4	1340.6
27.5°	1238.7	1247.1	1269.9	1303.2	1309.4
30°	1193.0	1205.5	1230.4	1267.8	1274.1
32.5°	1147.3	1159.8	1190.9	1228.4	1236.7
35°	1097.4	1112.0	1147.3	1190.9	1201.3
37.5°	1045.5	1064.2	1105.7	1149.4	1161.8
40°	993.5	1014.3	1060.0	1105.7	1120.3
42.5°	941.5	962.3	1012.2	1064.2	1078.7
45°	883.3	912.4	966.5	1020.5	1033.0
47.5°	827.2	858.4	918.7	972.7	989.3
50°	773.2	804.4	868.8	924.9	941.5
52.5°	717.1	750.3	818.9	877.1	891.6
55°	660.9	696.3	769.0	825.1	837.6
57.5°	604.8	642.2	717.1	771.1	785.6
60°	548.7	588.2	660.9	715.0	725.4
62.5°	492.6	534.2	609.0	656.8	667.2
65°	436.5	482.2	557.0	600.7	613.1
67.5°	382.4	428.2	500.9	542.5	552.9
70°	332.5	374.1	446.9	478.0	482.2
72.5°	270.2	322.2	392.8	409.5	399.1
75°	218.2	270.2	330.5	324.2	311.8
77.5°	166.3	218.2	257.7	236.9	220.3
80°	118.5	170.4	178.7	147.6	139.3
82.5°	76.9	118.5	99.8	76.9	62.4
85°	39.5	56.1	31.2	24.9	20.8
87.5°	12.5	8.3	4.2	4.2	2.1
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)