

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: P308832

Luminaire Tested: **22FCZ2-44HE-UNV-L82765-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: P308832
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1805-783-33)
Test Lab: INNOVATION CENTER(G3)
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: FAIL-SAFE
Catalog Number: 22FCZ2-44HE-UNV-L82765-CA08-W2A-U-5700K
Description: 2'X2' TROFFER LED MODULE, RIBBED 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: 4149.0 lumens
Efficiency: N/A
Efficacy: 108.6 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.28 / 1.37
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

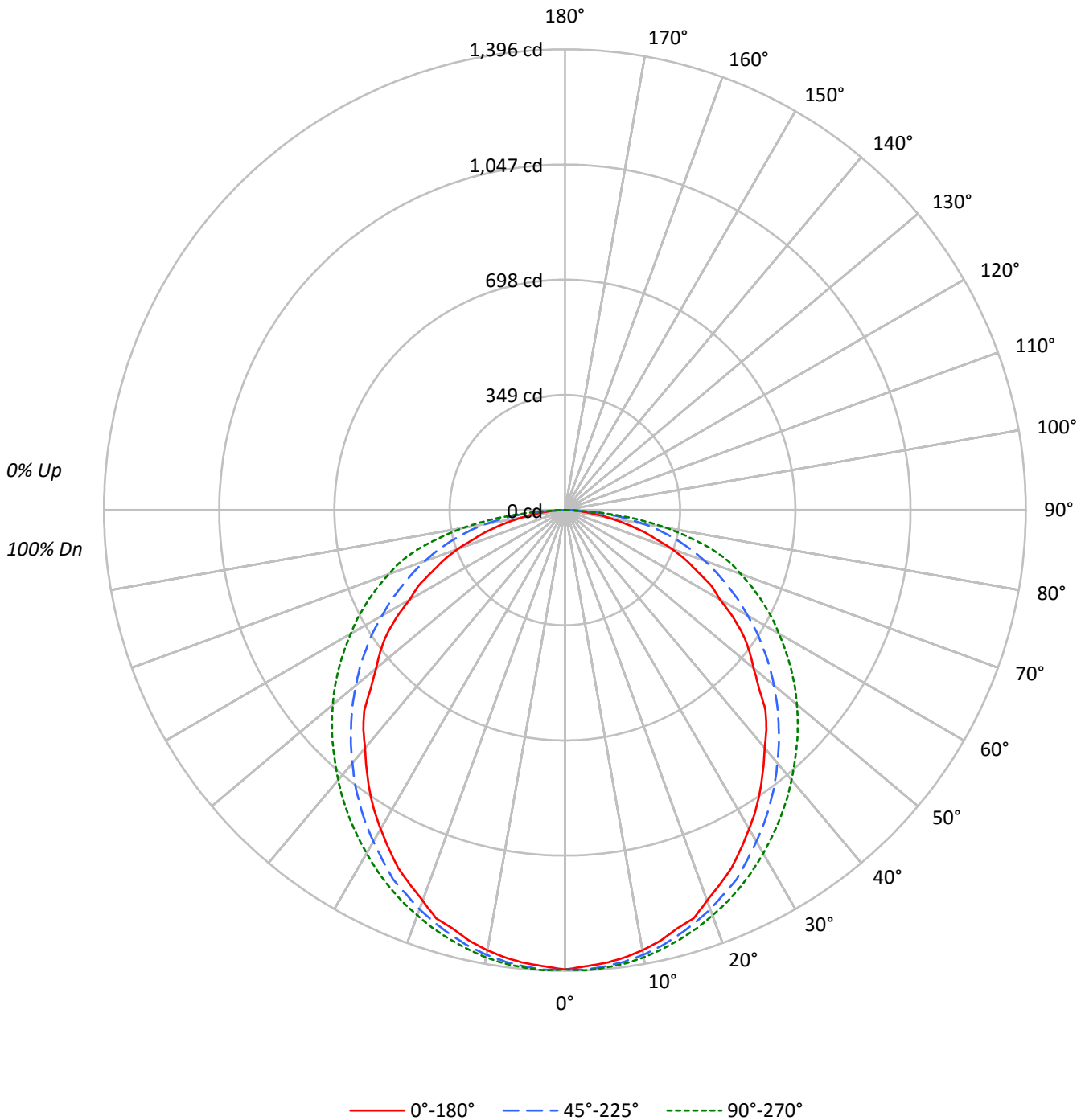
Input Watts (W): 38.2
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	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	108	103	98	94	105	100	96	92	96	93	90	92	89	87	89	86	84	82				
2	98	89	82	76	95	87	80	75	83	78	73	80	75	71	77	73	70	67				
3	89	78	69	62	86	76	68	62	73	66	61	70	64	60	68	63	59	56				
4	81	69	60	53	79	67	59	52	65	57	51	62	56	51	60	55	50	48				
5	74	61	52	45	72	60	51	45	58	50	44	56	49	44	54	48	43	41				
6	69	55	46	39	67	54	45	39	52	44	39	51	44	38	49	43	38	36				
7	64	50	41	35	62	49	40	34	47	40	34	46	39	34	45	38	34	32				
8	59	45	37	31	58	45	36	31	43	36	30	42	35	30	41	35	30	28				
9	55	42	33	28	54	41	33	28	40	33	27	39	32	27	38	32	27	25				
10	52	38	30	25	51	38	30	25	37	30	25	36	29	25	35	29	25	23				

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	3746	3746	3746
5°	3723	3750	3760
10°	3701	3739	3760
15°	3657	3712	3751
20°	3605	3685	3742
25°	3549	3662	3738
30°	3468	3604	3733
35°	3392	3562	3738
40°	3307	3516	3753
45°	3272	3484	3786
50°	3126	3458	3841
55°	3093	3447	3922
60°	2918	3441	4029
65°	2832	3465	4211
70°	2718	3547	4468
75°	2478	3655	4811
80°	2123	3784	4863
85°	1717	3619	4168



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	131.7	3.2
10°-20°	375.8	9.1
20°-30°	565.5	13.6
30°-40°	678.8	16.4
40°-50°	709.4	17.1
50°-60°	661.1	15.9
60°-70°	542.3	13.1
70°-80°	365.4	8.8
80°-90°	119.0	2.9
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°	1073.0	25.9
0°-40°	1751.8	42.2
0°-60°	3122.3	75.3
0°-90°	4149.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4149.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1392	1392	1392	1392	1392	
5°	1378	1382	1388	1390	1392	131
15°	1313	1320	1332	1344	1346	371
25°	1195	1203	1233	1251	1259	550
35°	1033	1046	1084	1122	1138	646
45°	860	866	915	971	995	657
55°	659	671	735	804	836	584
65°	445	465	544	624	661	442
75°	238	264	352	431	463	251
85°	56	79	117	137	135	66
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1392.0	1392.0	1392.0	1392.0	1392.0
2.5°	1384.1	1388.1	1394.0	1396.0	1396.0
5°	1378.1	1382.1	1388.1	1390.0	1392.0
7.5°	1368.2	1372.2	1380.1	1384.1	1386.1
10°	1354.3	1358.3	1368.2	1374.2	1376.1
12.5°	1336.4	1340.4	1352.3	1360.3	1362.2
15°	1312.6	1320.5	1332.5	1344.4	1346.4
17.5°	1296.7	1294.7	1310.6	1324.5	1328.5
20°	1259.0	1268.9	1286.8	1302.7	1306.6
22.5°	1227.2	1235.1	1259.0	1276.9	1284.8
25°	1195.4	1203.4	1233.2	1251.0	1259.0
27.5°	1155.7	1167.6	1195.4	1221.2	1231.2
30°	1116.0	1127.9	1159.7	1189.5	1201.4
32.5°	1076.3	1090.2	1123.9	1155.7	1169.6
35°	1032.6	1046.5	1084.2	1122.0	1137.8
37.5°	986.9	1004.8	1044.5	1086.2	1104.1
40°	941.3	959.1	1000.8	1048.5	1068.3
42.5°	903.5	911.5	959.1	1010.8	1030.6
45°	859.8	865.8	915.4	971.0	994.9
47.5°	796.3	818.1	871.8	933.3	957.1
50°	746.6	770.5	826.1	891.6	917.4
52.5°	704.9	720.8	782.4	847.9	877.7
55°	659.3	671.2	734.7	804.2	836.0
57.5°	603.7	625.5	689.1	760.5	792.3
60°	542.1	569.9	639.4	716.9	748.6
62.5°	502.4	518.3	593.7	671.2	706.9
65°	444.8	464.7	544.1	623.5	661.3
67.5°	397.2	417.0	498.4	577.9	615.6
70°	345.5	365.4	450.8	530.2	567.9
72.5°	286.0	313.8	403.1	482.5	522.3
75°	238.3	264.1	351.5	430.9	462.7
77.5°	184.7	218.4	299.9	365.4	389.2
80°	137.0	170.8	244.2	291.9	313.8
82.5°	93.3	127.1	182.7	218.4	230.3
85°	55.6	79.4	117.2	137.0	135.0
87.5°	25.8	33.8	47.7	47.7	45.7
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)