

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: P308827

Luminaire Tested: **22FCZ2-44HE-UNV-L82765-CA08-W2A-U-3500K**

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: P308827
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-3500K
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: 3887.0 lumens
Efficiency: N/A
Efficacy: 103.9 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

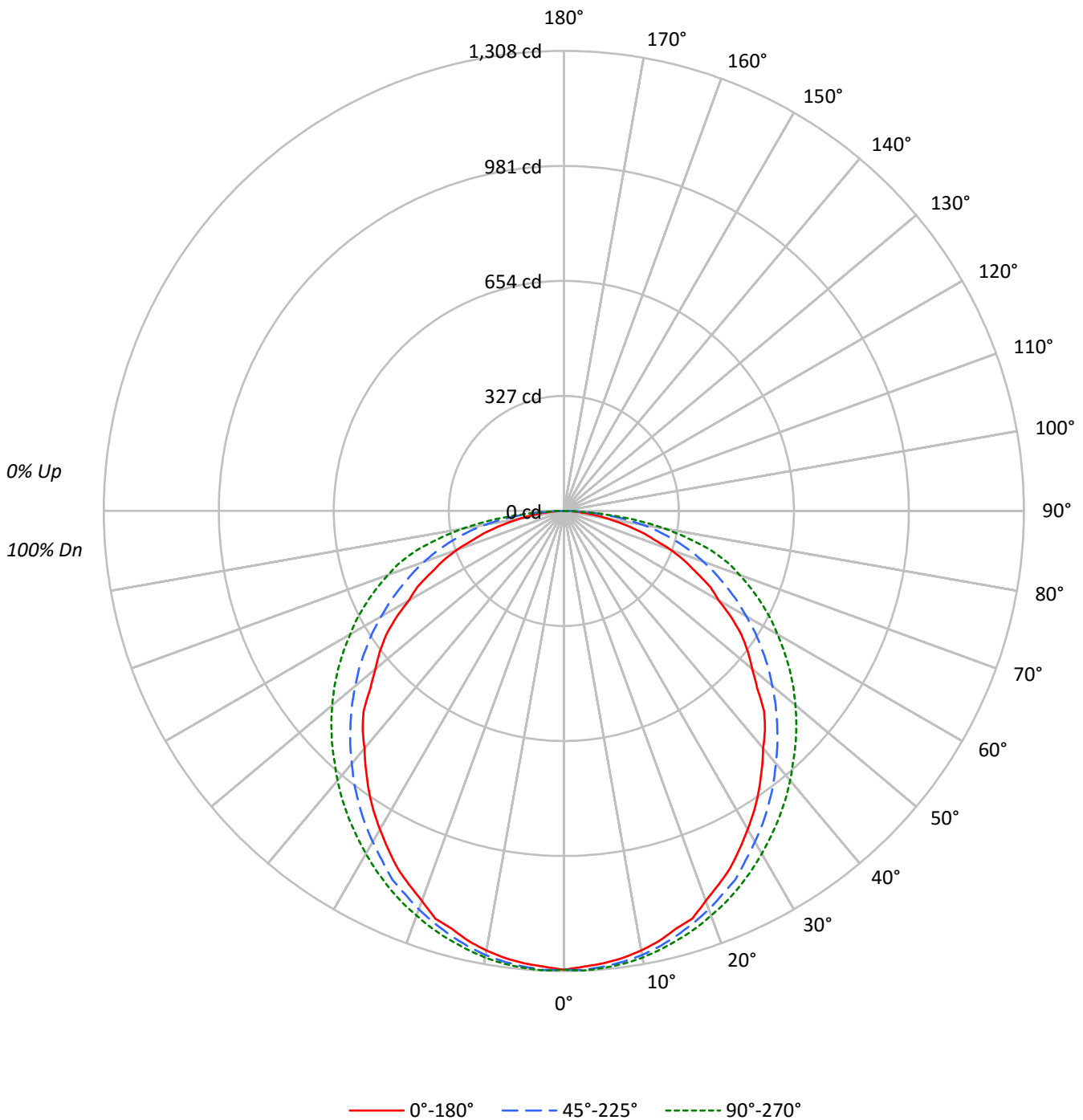
Input Watts (W): 37.4
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	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°	3509	3509	3509
5°	3488	3513	3523
10°	3467	3503	3523
15°	3426	3478	3514
20°	3378	3452	3505
25°	3325	3430	3502
30°	3249	3376	3497
35°	3178	3337	3502
40°	3098	3294	3516
45°	3065	3264	3547
50°	2928	3240	3598
55°	2898	3229	3674
60°	2733	3224	3775
65°	2653	3245	3945
70°	2547	3323	4187
75°	2321	3424	4507
80°	1990	3546	4554
85°	1609	3390	3906



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	123.4	3.2
10°-20°	352.0	9.1
20°-30°	529.8	13.6
30°-40°	635.9	16.4
40°-50°	664.6	17.1
50°-60°	619.4	15.9
60°-70°	508.0	13.1
70°-80°	342.3	8.8
80°-90°	111.5	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°	1005.3	25.9
0°-40°	1641.2	42.2
0°-60°	2925.2	75.3
0°-90°	3887.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3887.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1304	1304	1304	1304	1304	
5°	1291	1295	1300	1302	1304	123
15°	1230	1237	1248	1260	1261	348
25°	1120	1127	1155	1172	1180	515
35°	967	980	1016	1051	1066	605
45°	806	811	858	910	932	615
55°	618	629	688	754	783	547
65°	417	435	510	584	620	415
75°	223	247	329	404	434	235
85°	52	74	110	128	126	62
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1304.1	1304.1	1304.1	1304.1	1304.1
2.5°	1296.7	1300.4	1306.0	1307.8	1307.8
5°	1291.1	1294.8	1300.4	1302.3	1304.1
7.5°	1281.8	1285.5	1293.0	1296.7	1298.5
10°	1268.8	1272.5	1281.8	1287.4	1289.2
12.5°	1252.0	1255.8	1266.9	1274.4	1276.2
15°	1229.7	1237.1	1248.3	1259.5	1261.3
17.5°	1214.8	1213.0	1227.8	1240.9	1244.6
20°	1179.5	1188.8	1205.5	1220.4	1224.1
22.5°	1149.7	1157.2	1179.5	1196.2	1203.7
25°	1119.9	1127.4	1155.3	1172.0	1179.5
27.5°	1082.7	1093.9	1119.9	1144.1	1153.4
30°	1045.5	1056.7	1086.5	1114.4	1125.5
32.5°	1008.3	1021.3	1053.0	1082.7	1095.8
35°	967.4	980.4	1015.8	1051.1	1066.0
37.5°	924.6	941.3	978.6	1017.6	1034.4
40°	881.8	898.6	937.6	982.3	1000.9
42.5°	846.5	853.9	898.6	946.9	965.5
45°	805.5	811.1	857.6	909.7	932.0
47.5°	746.0	766.5	816.7	874.4	896.7
50°	699.5	721.8	773.9	835.3	859.5
52.5°	660.4	675.3	733.0	794.4	822.3
55°	617.6	628.8	688.3	753.5	783.2
57.5°	565.6	586.0	645.5	712.5	742.3
60°	507.9	533.9	599.0	671.6	701.4
62.5°	470.7	485.6	556.3	628.8	662.3
65°	416.7	435.3	509.7	584.2	619.5
67.5°	372.1	390.7	467.0	541.4	576.7
70°	323.7	342.3	422.3	496.7	532.1
72.5°	267.9	293.9	377.7	452.1	489.3
75°	223.2	247.4	329.3	403.7	433.5
77.5°	173.0	204.6	280.9	342.3	364.6
80°	128.4	160.0	228.8	273.5	293.9
82.5°	87.4	119.1	171.2	204.6	215.8
85°	52.1	74.4	109.8	128.4	126.5
87.5°	24.2	31.6	44.6	44.6	42.8
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)