

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: P308336

Luminaire Tested: **22FCZ2-20HE-UNV-L82765-RDP-CA08-W2A-U-5500K**

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: P308336
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1805-783-24)
Test Lab: INNOVATION CENTER(G3)
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: FAIL-SAFE
Catalog Number: 22FCZ2-20HE-UNV-L82765-RDP-CA08-W2A-U-5500K
Description: 2'X2' TROFFER LED MODULE, SMOOTH LENS WITH INSERT, 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: 1354.0 lumens
Efficiency: N/A
Efficacy: 78.7 lumens/watt
Spacing Criteria (0/90/45): 1.25 / 1.3 / 1.41
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

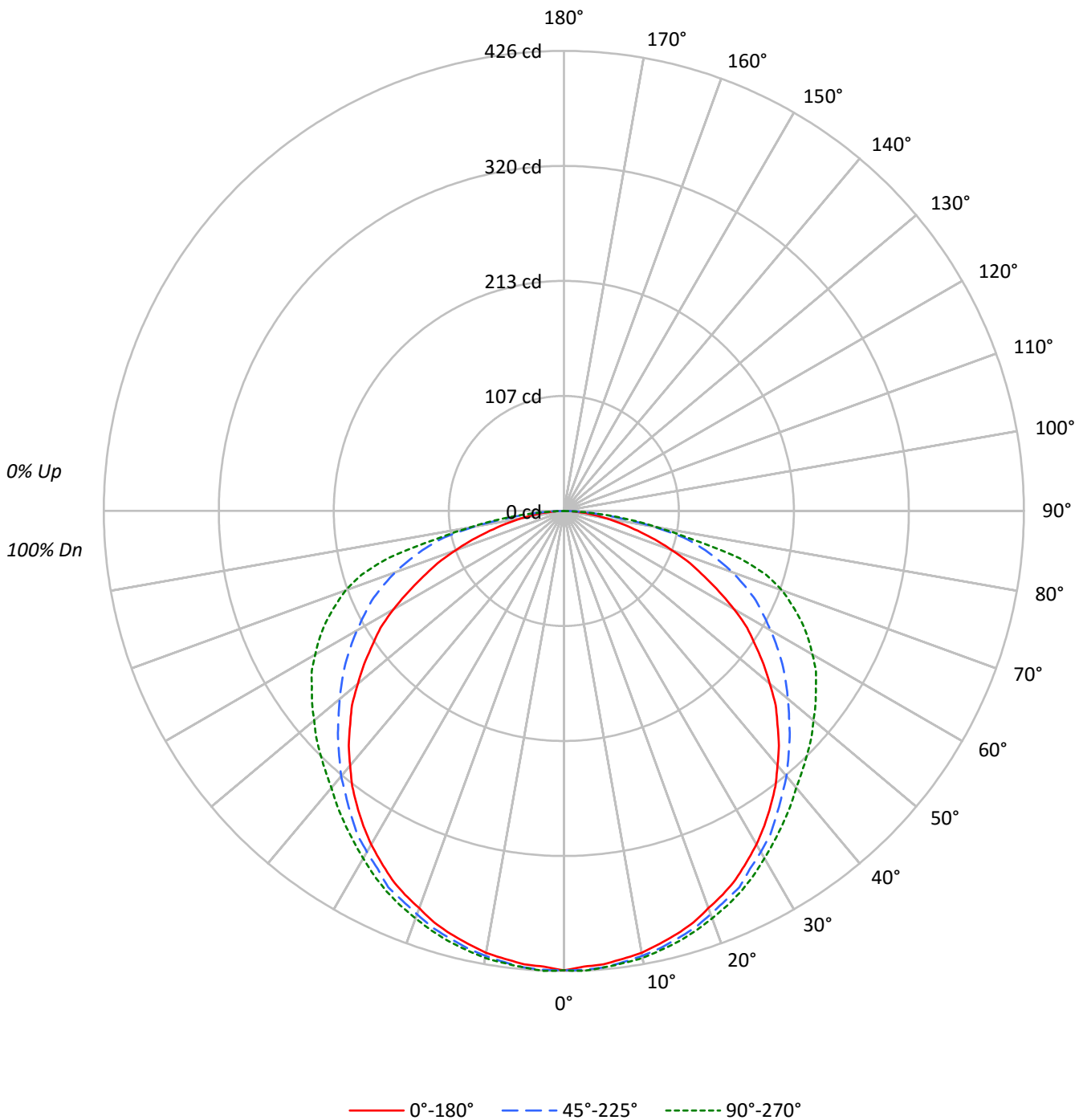
Input Watts (W): 17.2
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	92	89	92	89	86	88	86	84	82				
2	97	88	81	75	95	86	80	74	83	77	72	80	75	71	76	72	69	67				
3	88	77	68	61	86	75	67	61	72	65	60	70	64	59	67	62	58	55				
4	80	68	59	51	78	66	58	51	64	56	50	61	55	50	59	54	49	47				
5	74	60	51	44	72	59	50	44	57	49	43	55	48	43	53	47	42	40				
6	68	54	45	38	66	53	44	38	51	43	38	50	43	37	48	42	37	35				
7	63	49	40	33	61	48	39	33	47	39	33	45	38	33	44	37	33	31				
8	59	45	36	30	57	44	35	30	43	35	29	41	34	29	40	34	29	27				
9	55	41	32	27	53	40	32	27	39	32	26	38	31	26	37	31	26	24				
10	51	38	30	24	50	37	29	24	36	29	24	35	29	24	34	28	24	22				

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	1144	1144	1144
5°	1138	1146	1146
10°	1135	1143	1148
15°	1129	1141	1149
20°	1121	1138	1149
25°	1118	1142	1154
30°	1108	1133	1154
35°	1096	1129	1162
40°	1081	1127	1176
45°	1065	1126	1213
50°	1042	1134	1263
55°	1014	1159	1337
60°	981	1190	1431
65°	913	1249	1547
70°	839	1308	1692
75°	735	1378	1750
80°	632	1313	1373
85°	553	954	1047



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	40.2	3.0
10°-20°	115.5	8.5
20°-30°	176.2	13.0
30°-40°	215.2	15.9
40°-50°	230.1	17.0
50°-60°	222.1	16.4
60°-70°	191.2	14.1
70°-80°	129.4	9.6
80°-90°	34.2	2.5
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°	332.0	24.5
0°-40°	547.2	40.4
0°-60°	999.3	73.8
0°-90°	1354.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1354.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	425	425	425	425	425	
5°	421	422	424	424	424	40
15°	405	406	409	411	412	114
25°	376	378	384	386	388	173
35°	334	337	344	351	354	209
45°	280	285	296	311	319	216
55°	216	223	247	272	285	194
65°	143	157	196	227	243	143
75°	71	94	132	159	168	76
85°	18	25	31	32	34	20
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	425.3	425.3	425.3	425.3	425.3
2.5°	422.3	423.3	425.3	425.3	426.3
5°	421.3	422.3	424.3	424.3	424.3
7.5°	418.3	419.3	421.3	422.3	422.3
10°	415.4	416.4	418.3	419.3	420.3
12.5°	410.4	411.4	414.4	416.4	416.4
15°	405.4	406.4	409.4	411.4	412.4
17.5°	399.4	401.4	404.4	406.4	407.4
20°	391.4	393.4	397.4	400.4	401.4
22.5°	384.5	386.5	390.5	393.4	395.4
25°	376.5	378.5	384.5	386.5	388.5
27.5°	366.5	368.5	373.5	377.5	380.5
30°	356.6	358.6	364.6	369.5	371.5
32.5°	345.6	348.6	355.6	359.6	362.6
35°	333.7	336.7	343.6	350.6	353.6
37.5°	321.7	324.7	331.7	340.7	344.6
40°	307.8	311.8	320.7	332.7	334.7
42.5°	294.8	299.8	307.8	321.7	326.7
45°	279.9	284.9	295.8	310.8	318.7
47.5°	265.9	270.9	282.9	300.8	310.8
50°	249.0	256.0	270.9	291.8	301.8
52.5°	233.1	239.1	259.0	281.9	293.8
55°	216.1	223.1	247.0	271.9	284.9
57.5°	201.2	207.2	234.1	262.0	276.9
60°	182.3	190.2	221.1	251.0	265.9
62.5°	162.4	174.3	208.2	239.1	255.0
65°	143.4	157.4	196.2	227.1	243.0
67.5°	126.5	141.4	181.3	214.2	229.1
70°	106.6	125.5	166.3	198.2	215.1
72.5°	88.6	109.6	149.4	181.3	196.2
75°	70.7	93.6	132.5	159.4	168.3
77.5°	54.8	76.7	113.6	121.5	122.5
80°	40.8	60.8	84.7	85.7	88.6
82.5°	27.9	42.8	54.8	59.8	60.8
85°	17.9	24.9	30.9	31.9	33.9
87.5°	8.0	9.0	11.0	10.0	10.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)