

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: P312843

Luminaire Tested: **22FCZ2-39HE-UNV-L83050-CA08-W2A-U-4500K**

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: P312843
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: 22FCZ2-39HE-UNV-L83050-CA08-W2A-U-4500K
Description: 2'X2' TROFFER LED MODULE, RIBBED LENS, 0.08" ACRYLIC SHEET
Light Source: (168) 4500K 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: 3760.0 lumens
Efficiency: N/A
Efficacy: 110.6 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

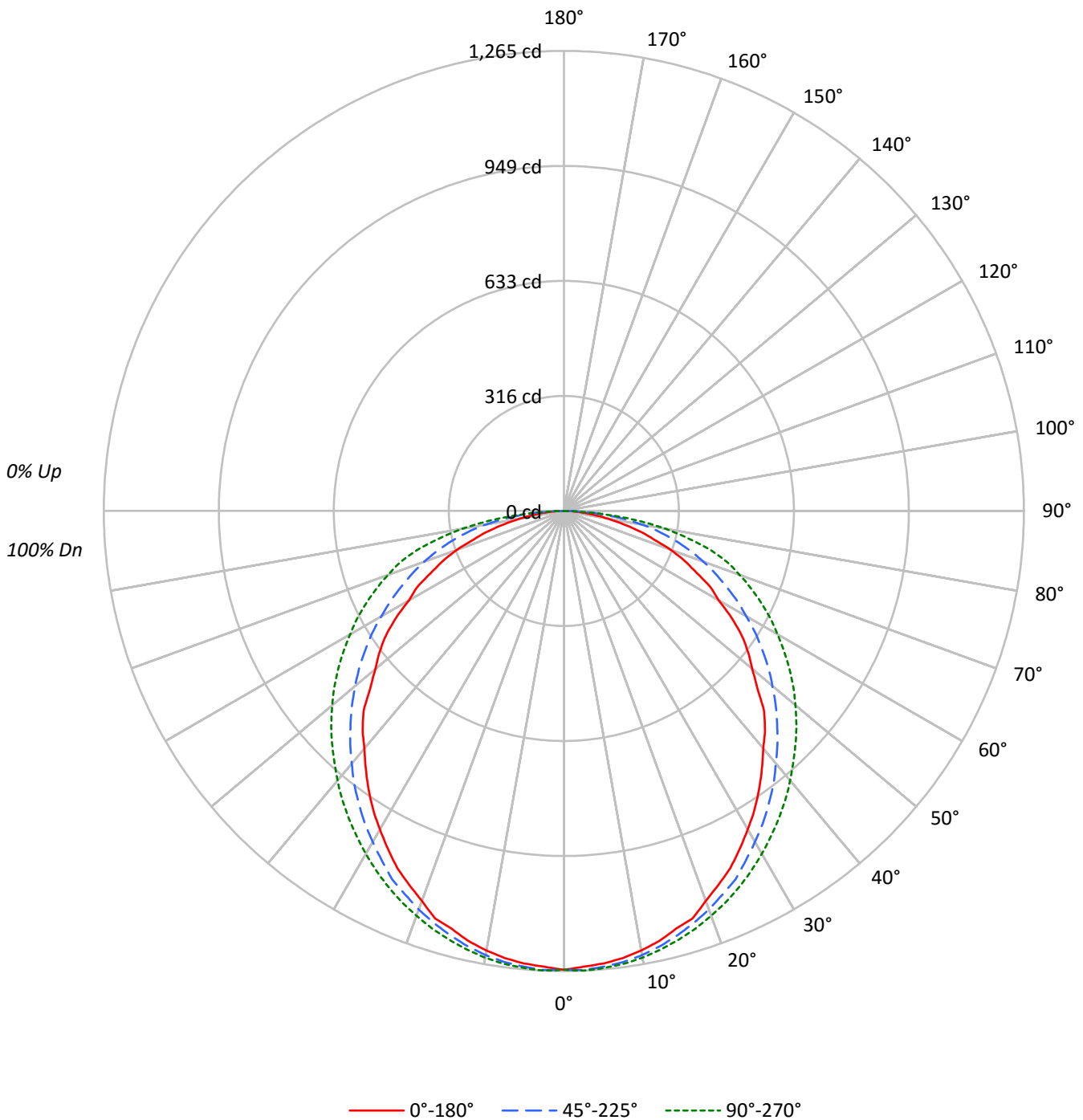
Input Watts (W): 34
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



TEST NUMBER: P312843

CATALOG NUMBER: 22FCZ2-39HE-UNV-L83050-CA08-W2A-U-4500K

Luminous Intensity Polar Plot





TEST NUMBER: P312843

CATALOG NUMBER: 22FCZ2-39HE-UNV-L83050-CA08-W2A-U-4500K

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°	3395	3395	3395
5°	3374	3398	3408
10°	3354	3388	3408
15°	3314	3364	3399
20°	3267	3339	3391
25°	3217	3318	3388
30°	3143	3266	3383
35°	3074	3228	3388
40°	2996	3186	3401
45°	2965	3157	3431
50°	2833	3134	3481
55°	2803	3124	3554
60°	2644	3119	3651
65°	2567	3140	3816
70°	2463	3214	4050
75°	2246	3311	4360
80°	1925	3429	4406
85°	1556	3279	3779



TEST NUMBER: P312843

CATALOG NUMBER: 22FCZ2-39HE-UNV-L83050-CA08-W2A-U-4500K

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	119.4	3.2
10°-20°	340.5	9.1
20°-30°	512.5	13.6
30°-40°	615.1	16.4
40°-50°	642.9	17.1
50°-60°	599.2	15.9
60°-70°	491.4	13.1
70°-80°	331.1	8.8
80°-90°	107.9	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°	972.4	25.9
0°-40°	1587.5	42.2
0°-60°	2829.6	75.3
0°-90°	3760.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3760.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1262	1262	1262	1262	1262	
5°	1249	1252	1258	1260	1262	119
15°	1190	1197	1208	1218	1220	336
25°	1083	1091	1118	1134	1141	498
35°	936	948	983	1017	1031	585
45°	779	785	830	880	902	595
55°	598	608	666	729	758	529
65°	403	421	493	565	599	401
75°	216	239	318	390	419	227
85°	50	72	106	124	122	60
90°	0	0	0	0	0	



TEST NUMBER: P312843

CATALOG NUMBER: 22FCZ2-39HE-UNV-L83050-CA08-W2A-U-4500K

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1261.5	1261.5	1261.5	1261.5	1261.5
2.5°	1254.3	1257.9	1263.3	1265.1	1265.1
5°	1248.9	1252.5	1257.9	1259.7	1261.5
7.5°	1239.9	1243.5	1250.7	1254.3	1256.1
10°	1227.3	1230.9	1239.9	1245.3	1247.1
12.5°	1211.1	1214.7	1225.5	1232.7	1234.5
15°	1189.5	1196.7	1207.5	1218.3	1220.1
17.5°	1175.1	1173.3	1187.7	1200.3	1203.9
20°	1140.9	1149.9	1166.1	1180.5	1184.1
22.5°	1112.1	1119.3	1140.9	1157.1	1164.3
25°	1083.4	1090.6	1117.5	1133.7	1140.9
27.5°	1047.4	1058.2	1083.4	1106.7	1115.7
30°	1011.4	1022.2	1051.0	1078.0	1088.8
32.5°	975.4	988.0	1018.6	1047.4	1060.0
35°	935.8	948.4	982.6	1016.8	1031.2
37.5°	894.4	910.6	946.6	984.4	1000.6
40°	853.0	869.2	907.0	950.2	968.2
42.5°	818.8	826.0	869.2	916.0	934.0
45°	779.2	784.6	829.6	880.0	901.6
47.5°	721.6	741.4	790.0	845.8	867.4
50°	676.6	698.2	748.6	808.0	831.4
52.5°	638.9	653.3	709.0	768.4	795.4
55°	597.5	608.3	665.8	728.8	757.6
57.5°	547.1	566.9	624.5	689.2	718.0
60°	491.3	516.5	579.5	649.7	678.4
62.5°	455.3	469.7	538.1	608.3	640.7
65°	403.1	421.1	493.1	565.1	599.3
67.5°	359.9	377.9	451.7	523.7	557.9
70°	313.1	331.1	408.5	480.5	514.7
72.5°	259.1	284.3	365.3	437.3	473.3
75°	216.0	239.3	318.5	390.5	419.3
77.5°	167.4	198.0	271.7	331.1	352.7
80°	124.2	154.8	221.3	264.5	284.3
82.5°	84.6	115.2	165.6	198.0	208.8
85°	50.4	72.0	106.2	124.2	122.4
87.5°	23.4	30.6	43.2	43.2	41.4
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)