

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: P308805

Luminaire Tested: **22FCZ2-39HE-UNV-L82765-CP125-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: P308805
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-L82765-CP125-W2A-U-5700K
Description: 2'X2' TROFFER LED MODULE, RIBBED LENS, 0.125" POLYCARB 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: 3614.0 lumens
Efficiency: N/A
Efficacy: 108.5 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

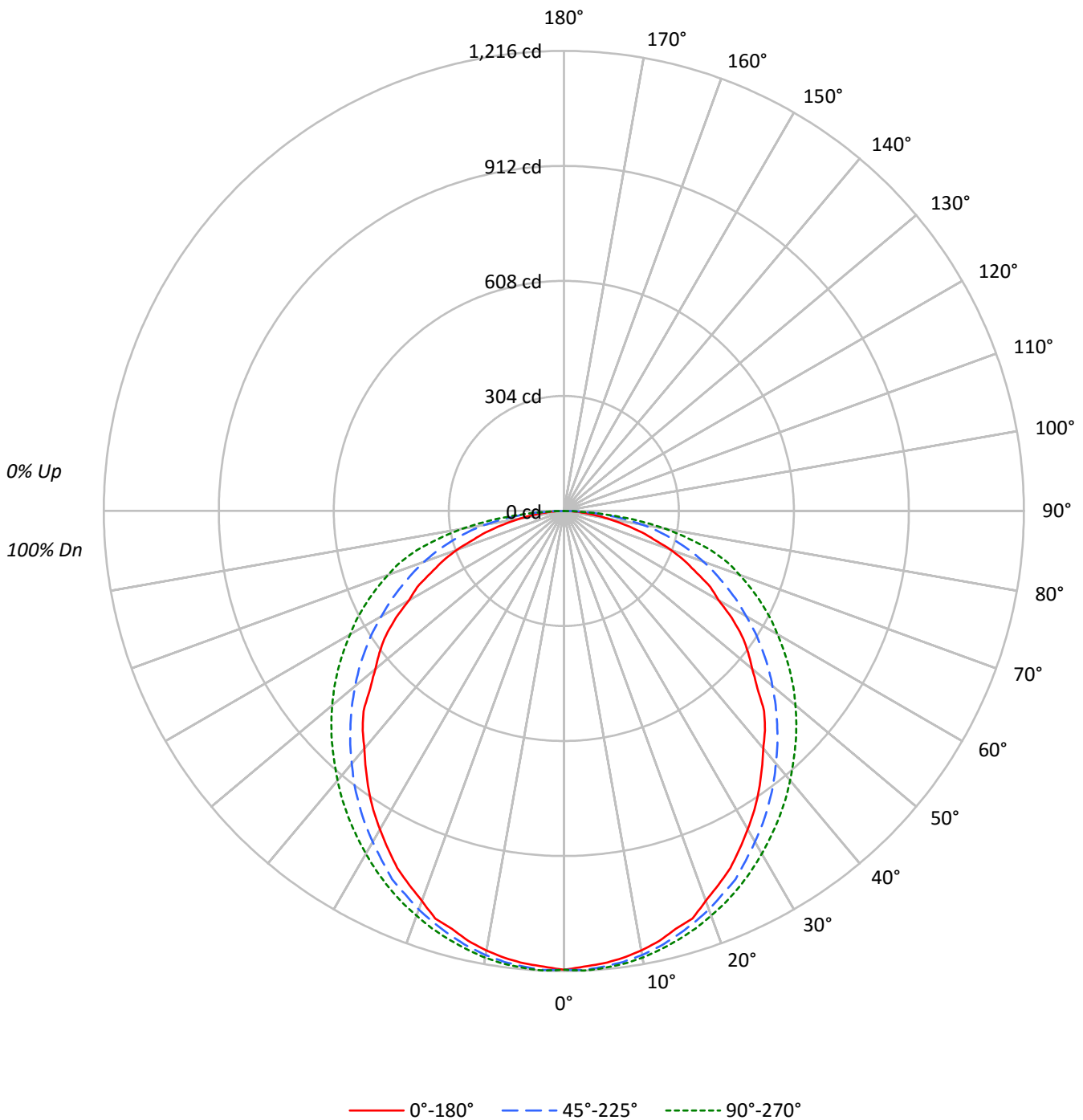
Input Watts (W): 33.3
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	3263	3263	3263
5°	3243	3266	3275
10°	3224	3257	3275
15°	3185	3233	3267
20°	3140	3210	3259
25°	3092	3189	3256
30°	3021	3139	3252
35°	2955	3102	3256
40°	2880	3062	3269
45°	2850	3035	3298
50°	2723	3013	3345
55°	2694	3003	3416
60°	2541	2998	3510
65°	2467	3018	3668
70°	2368	3089	3892
75°	2158	3184	4190
80°	1850	3298	4235
85°	1494	3152	3631



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	114.7	3.2
10°-20°	327.3	9.1
20°-30°	492.6	13.6
30°-40°	591.2	16.4
40°-50°	618.0	17.1
50°-60°	575.9	15.9
60°-70°	472.3	13.1
70°-80°	318.3	8.8
80°-90°	103.7	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°	934.7	25.9
0°-40°	1525.9	42.2
0°-60°	2719.7	75.3
0°-90°	3614.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3614.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1212	1212	1212	1212	1212	
5°	1200	1204	1209	1211	1212	114
15°	1143	1150	1161	1171	1173	323
25°	1041	1048	1074	1090	1097	479
35°	899	912	944	977	991	562
45°	749	754	797	846	867	572
55°	574	585	640	700	728	509
65°	388	405	474	543	576	385
75°	208	230	306	375	403	218
85°	48	69	102	119	118	58
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1212.5	1212.5	1212.5	1212.5	1212.5
2.5°	1205.6	1209.1	1214.3	1216.0	1216.0
5°	1200.4	1203.9	1209.1	1210.8	1212.5
7.5°	1191.8	1195.2	1202.1	1205.6	1207.3
10°	1179.7	1183.1	1191.8	1197.0	1198.7
12.5°	1164.1	1167.6	1177.9	1184.9	1186.6
15°	1143.3	1150.3	1160.6	1171.0	1172.7
17.5°	1129.5	1127.8	1141.6	1153.7	1157.2
20°	1096.6	1105.3	1120.9	1134.7	1138.2
22.5°	1069.0	1075.9	1096.6	1112.2	1119.1
25°	1041.3	1048.2	1074.2	1089.7	1096.6
27.5°	1006.7	1017.1	1041.3	1063.8	1072.4
30°	972.1	982.5	1010.2	1036.1	1046.5
32.5°	937.5	949.6	979.0	1006.7	1018.8
35°	899.4	911.6	944.4	977.3	991.1
37.5°	859.7	875.2	909.8	946.2	961.7
40°	819.9	835.5	871.8	913.3	930.6
42.5°	787.0	793.9	835.5	880.4	897.7
45°	749.0	754.2	797.4	845.8	866.6
47.5°	693.6	712.6	759.3	813.0	833.7
50°	650.4	671.1	719.6	776.6	799.1
52.5°	614.0	627.9	681.5	738.6	764.5
55°	574.3	584.6	640.0	700.5	728.2
57.5°	525.8	544.9	600.2	662.5	690.2
60°	472.2	496.4	557.0	624.4	652.1
62.5°	437.6	451.5	517.2	584.6	615.8
65°	387.5	404.8	473.9	543.1	576.0
67.5°	345.9	363.2	434.2	503.3	536.2
70°	301.0	318.3	392.6	461.8	494.7
72.5°	249.1	273.3	351.1	420.3	454.9
75°	207.6	230.1	306.2	375.3	403.0
77.5°	160.9	190.3	261.2	318.3	339.0
80°	119.4	148.8	212.8	254.3	273.3
82.5°	81.3	110.7	159.1	190.3	200.6
85°	48.4	69.2	102.1	119.4	117.6
87.5°	22.5	29.4	41.5	41.5	39.8
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)