

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: P308865

Luminaire Tested: **22FCZ2-44HE-UNV-L82765-CP250-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: P308865
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-CP250-W2A-U-4500K
Description: 2'X2' TROFFER LED MODULE, RIBBED LENS, 0.250" 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: 3752.0 lumens
Efficiency: N/A
Efficacy: 99.0 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

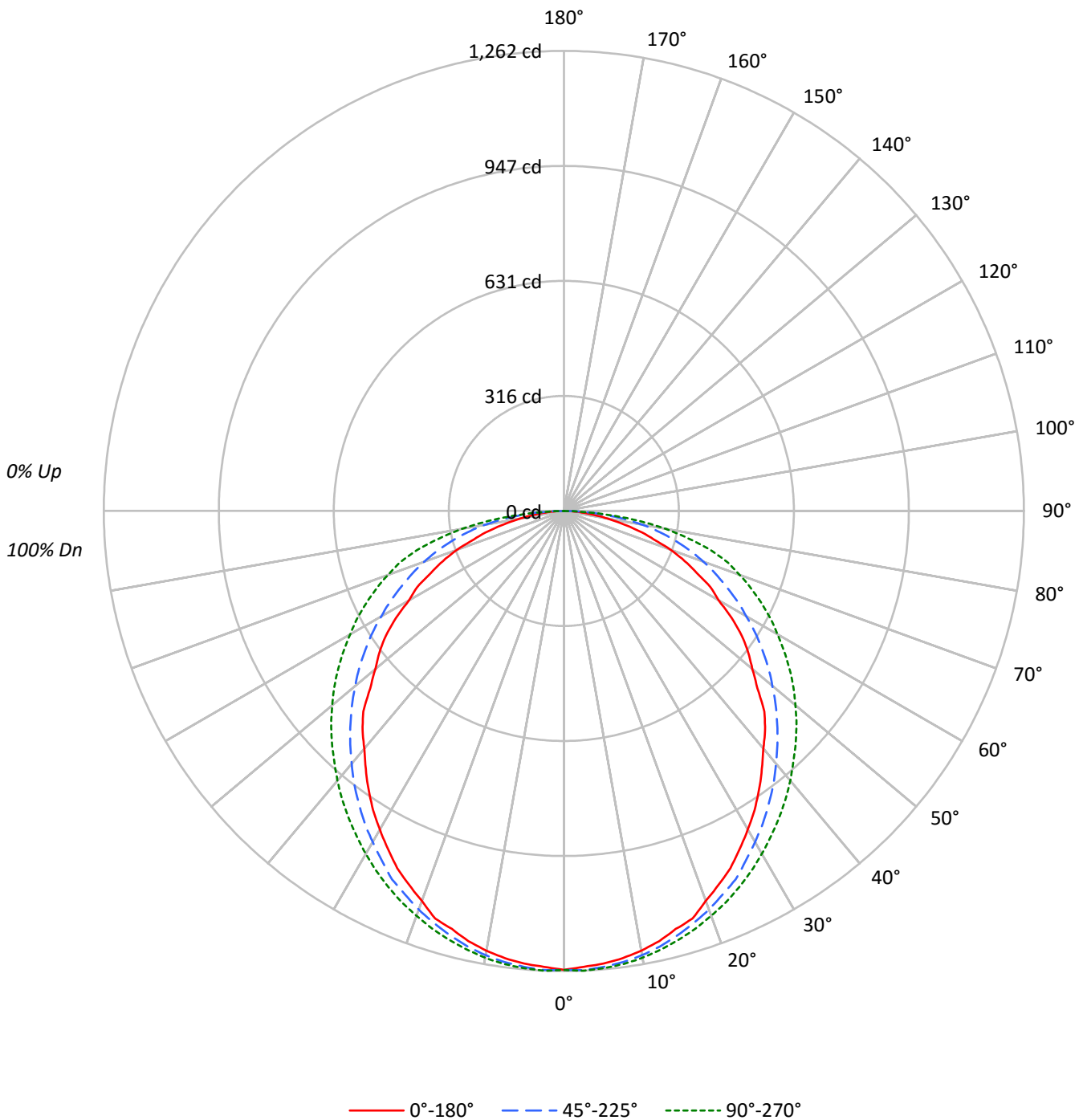
Input Watts (W): 37.9
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	3387	3387	3387
5°	3367	3391	3400
10°	3346	3381	3401
15°	3307	3357	3392
20°	3260	3332	3384
25°	3210	3311	3380
30°	3136	3259	3376
35°	3068	3221	3380
40°	2990	3179	3394
45°	2959	3150	3424
50°	2827	3127	3473
55°	2797	3117	3547
60°	2638	3112	3644
65°	2562	3133	3808
70°	2459	3207	4041
75°	2241	3304	4350
80°	1920	3423	4396
85°	1553	3270	3770



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	119.1	3.2
10°-20°	339.8	9.1
20°-30°	511.4	13.6
30°-40°	613.8	16.4
40°-50°	641.6	17.1
50°-60°	597.9	15.9
60°-70°	490.4	13.1
70°-80°	330.4	8.8
80°-90°	107.6	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°	970.3	25.9
0°-40°	1584.2	42.2
0°-60°	2823.6	75.3
0°-90°	3752.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3752.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1259	1259	1259	1259	1259	
5°	1246	1250	1255	1257	1259	118
15°	1187	1194	1205	1216	1218	335
25°	1081	1088	1115	1131	1138	497
35°	934	946	980	1015	1029	584
45°	778	783	828	878	900	594
55°	596	607	664	727	756	528
65°	402	420	492	564	598	400
75°	216	239	318	390	418	227
85°	50	72	106	124	122	60
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1258.8	1258.8	1258.8	1258.8	1258.8
2.5°	1251.6	1255.2	1260.6	1262.4	1262.4
5°	1246.3	1249.8	1255.2	1257.0	1258.8
7.5°	1237.3	1240.9	1248.1	1251.6	1253.4
10°	1224.7	1228.3	1237.3	1242.7	1244.5
12.5°	1208.5	1212.1	1222.9	1230.1	1231.9
15°	1187.0	1194.2	1205.0	1215.7	1217.5
17.5°	1172.6	1170.8	1185.2	1197.8	1201.4
20°	1138.5	1147.5	1163.7	1178.0	1181.6
22.5°	1109.8	1117.0	1138.5	1154.7	1161.9
25°	1081.0	1088.2	1115.2	1131.3	1138.5
27.5°	1045.1	1055.9	1081.0	1104.4	1113.4
30°	1009.2	1020.0	1048.7	1075.7	1086.4
32.5°	973.3	985.9	1016.4	1045.1	1057.7
35°	933.8	946.4	980.5	1014.6	1029.0
37.5°	892.5	908.7	944.6	982.3	998.4
40°	851.2	867.4	905.1	948.2	966.1
42.5°	817.1	824.3	867.4	914.0	932.0
45°	777.6	783.0	827.8	878.1	899.7
47.5°	720.1	739.9	788.3	844.0	865.6
50°	675.2	696.8	747.0	806.3	829.6
52.5°	637.5	651.9	707.5	766.8	793.7
55°	596.2	607.0	664.4	727.3	756.0
57.5°	545.9	565.7	623.1	687.8	716.5
60°	490.2	515.4	578.2	648.3	677.0
62.5°	454.3	468.7	536.9	607.0	639.3
65°	402.3	420.2	492.0	563.9	598.0
67.5°	359.2	377.1	450.7	522.6	556.7
70°	312.5	330.4	407.6	479.5	513.6
72.5°	258.6	283.7	364.5	436.4	472.3
75°	215.5	238.8	317.8	389.7	418.4
77.5°	167.0	197.5	271.2	330.4	352.0
80°	123.9	154.4	220.9	264.0	283.7
82.5°	84.4	114.9	165.2	197.5	208.3
85°	50.3	71.8	105.9	123.9	122.1
87.5°	23.3	30.5	43.1	43.1	41.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)