

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: P309020

Luminaire Tested: **22FCZ2-34HE-UNV-L82765-S-CA125-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: P309020
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1805-783-23)
Test Lab: INNOVATION CENTER(G3)
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: FAIL-SAFE
Catalog Number: 22FCZ2-34HE-UNV-L82765-S-CA125-W2A-U-5500K
Description: 2'X2' TROFFER LED MODULE, SMOOTH LENS, 0.125" 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: 3382.0 lumens
Efficiency: N/A
Efficacy: 119.1 lumens/watt
Spacing Criteria (0/90/45): 1.18 / 1.26 / 1.34
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

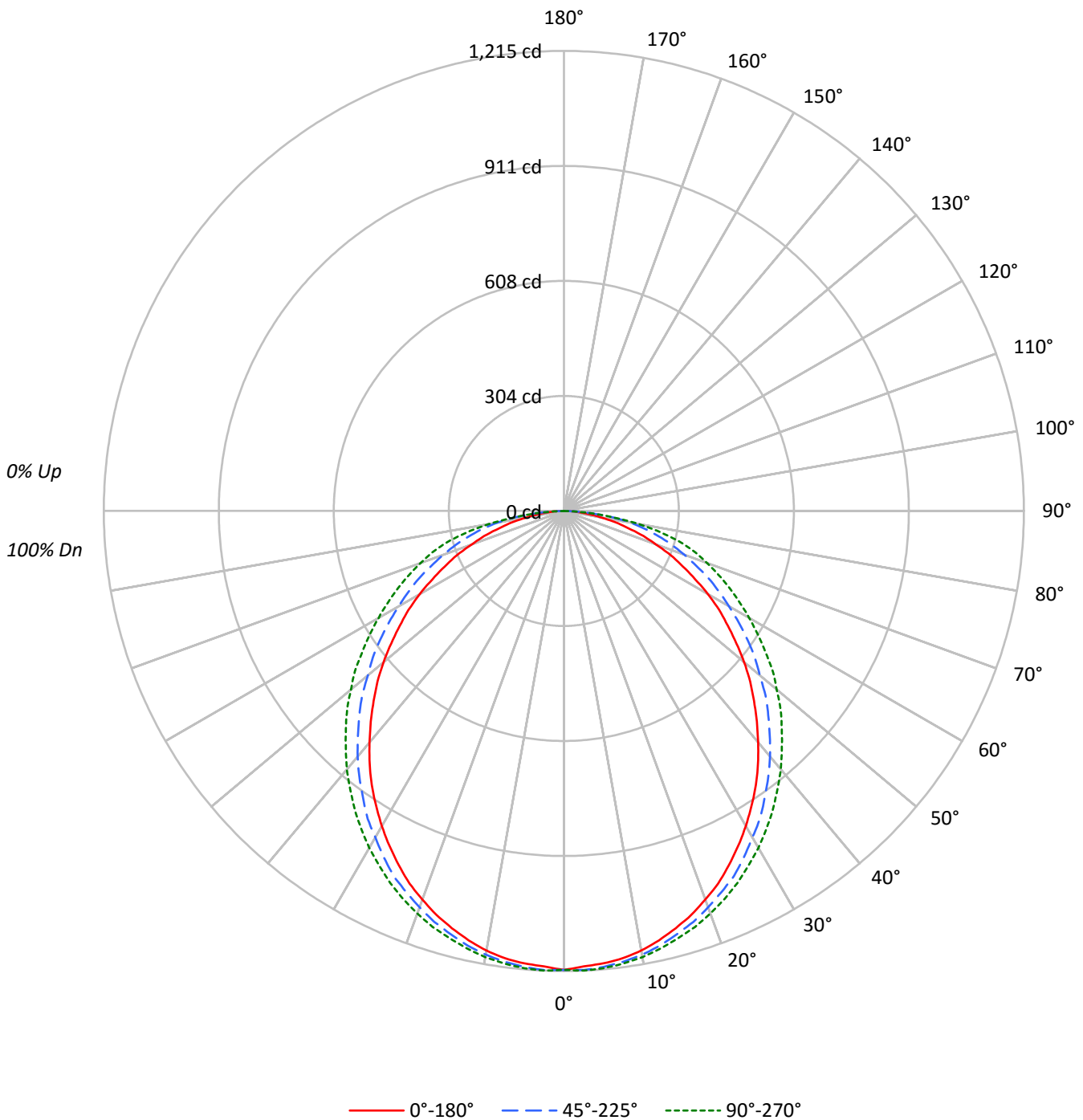
Input Watts (W): 28.4
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	99	95	106	101	97	94	97	94	91	93	90	88	89	87	85	83
2	98	90	83	77	96	88	82	76	84	79	74	81	77	73	78	74	71	69
3	90	79	71	64	87	77	70	63	74	68	62	72	66	61	69	64	60	58
4	82	70	61	54	80	69	60	54	66	59	53	64	57	52	61	56	52	49
5	75	62	53	47	73	61	53	46	59	52	46	57	51	45	55	50	45	43
6	70	56	47	41	68	55	47	41	53	46	40	52	45	40	50	44	39	37
7	65	51	42	36	63	50	42	36	49	41	36	47	40	35	46	40	35	33
8	60	47	38	32	59	46	38	32	45	37	32	43	37	32	42	36	31	30
9	56	43	35	29	55	42	34	29	41	34	29	40	33	29	39	33	28	27
10	53	40	32	26	51	39	31	26	38	31	26	37	31	26	36	30	26	24

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	3261	3261	3261
5°	3240	3265	3274
10°	3221	3251	3268
15°	3178	3222	3253
20°	3127	3190	3240
25°	3064	3158	3219
30°	2986	3094	3192
35°	2903	3038	3162
40°	2805	2977	3132
45°	2702	2906	3099
50°	2603	2828	3072
55°	2480	2776	3050
60°	2370	2709	3040
65°	2211	2693	3075
70°	2036	2670	3166
75°	1837	2707	3330
80°	1590	2788	3130
85°	1315	2337	2337



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	114.6	3.4
10°-20°	326.1	9.6
20°-30°	488.0	14.4
30°-40°	577.9	17.1
40°-50°	589.0	17.4
50°-60°	527.9	15.6
60°-70°	413.3	12.2
70°-80°	266.5	7.9
80°-90°	78.7	2.3
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°	928.7	27.5
0°-40°	1506.7	44.5
0°-60°	2623.5	77.6
0°-90°	3382.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3382.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1212	1212	1212	1212	1212	
5°	1199	1202	1209	1210	1212	114
15°	1141	1147	1157	1166	1168	322
25°	1032	1042	1064	1078	1084	475
35°	884	895	925	953	963	552
45°	710	726	764	803	814	548
55°	529	546	592	633	650	474
65°	347	368	423	464	483	345
75°	177	204	260	304	320	189
85°	43	58	76	76	76	50
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1211.9	1211.9	1211.9	1211.9	1211.9
2.5°	1204.0	1207.1	1213.5	1215.0	1215.0
5°	1199.3	1202.4	1208.7	1210.3	1211.9
7.5°	1191.4	1192.9	1200.8	1204.0	1205.6
10°	1178.7	1181.9	1189.8	1194.5	1196.1
12.5°	1161.4	1166.1	1175.6	1181.9	1183.5
15°	1140.9	1147.2	1156.6	1166.1	1167.7
17.5°	1118.8	1125.1	1137.7	1148.8	1151.9
20°	1092.0	1099.8	1114.0	1126.7	1131.4
22.5°	1065.1	1071.4	1088.8	1104.6	1109.3
25°	1032.0	1041.5	1063.5	1077.7	1084.1
27.5°	997.3	1008.3	1030.4	1049.3	1055.7
30°	961.0	972.0	995.7	1019.4	1027.3
32.5°	923.1	935.7	964.1	987.8	995.7
35°	883.7	894.7	924.7	953.1	962.6
37.5°	842.6	852.1	886.8	916.8	926.3
40°	798.4	811.1	847.4	882.1	891.5
42.5°	754.3	768.5	804.8	842.6	852.1
45°	710.1	725.9	763.7	803.2	814.2
47.5°	667.5	680.1	722.7	760.6	776.4
50°	621.7	634.3	675.4	718.0	733.8
52.5°	574.4	591.7	635.9	676.9	695.9
55°	528.6	546.0	591.7	632.8	650.1
57.5°	486.0	500.2	547.6	590.2	607.5
60°	440.3	452.9	503.4	549.1	564.9
62.5°	391.3	410.3	462.3	504.9	523.9
65°	347.2	367.7	422.9	463.9	482.9
67.5°	306.1	325.1	378.7	422.9	443.4
70°	258.8	284.0	339.3	383.4	402.4
72.5°	220.9	243.0	299.8	344.0	364.5
75°	176.7	203.6	260.4	304.5	320.3
77.5°	140.4	167.3	220.9	255.6	263.5
80°	102.6	129.4	179.9	197.2	202.0
82.5°	69.4	94.7	129.4	134.1	135.7
85°	42.6	58.4	75.7	75.7	75.7
87.5°	20.5	23.7	26.8	25.2	25.2
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)