

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: P308419

Luminaire Tested: **22FCZ2-24HE-UNV-L82765-RDP-CP250-W2A-U-6500K**

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: P308419
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: 22FCZ2-24HE-UNV-L82765-RDP-CP250-W2A-U-6500K
Description: 2'X2' TROFFER LED MODULE, SMOOTH LENS WITH INSERT, 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: 1425.0 lumens
Efficiency: N/A
Efficacy: 72.3 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

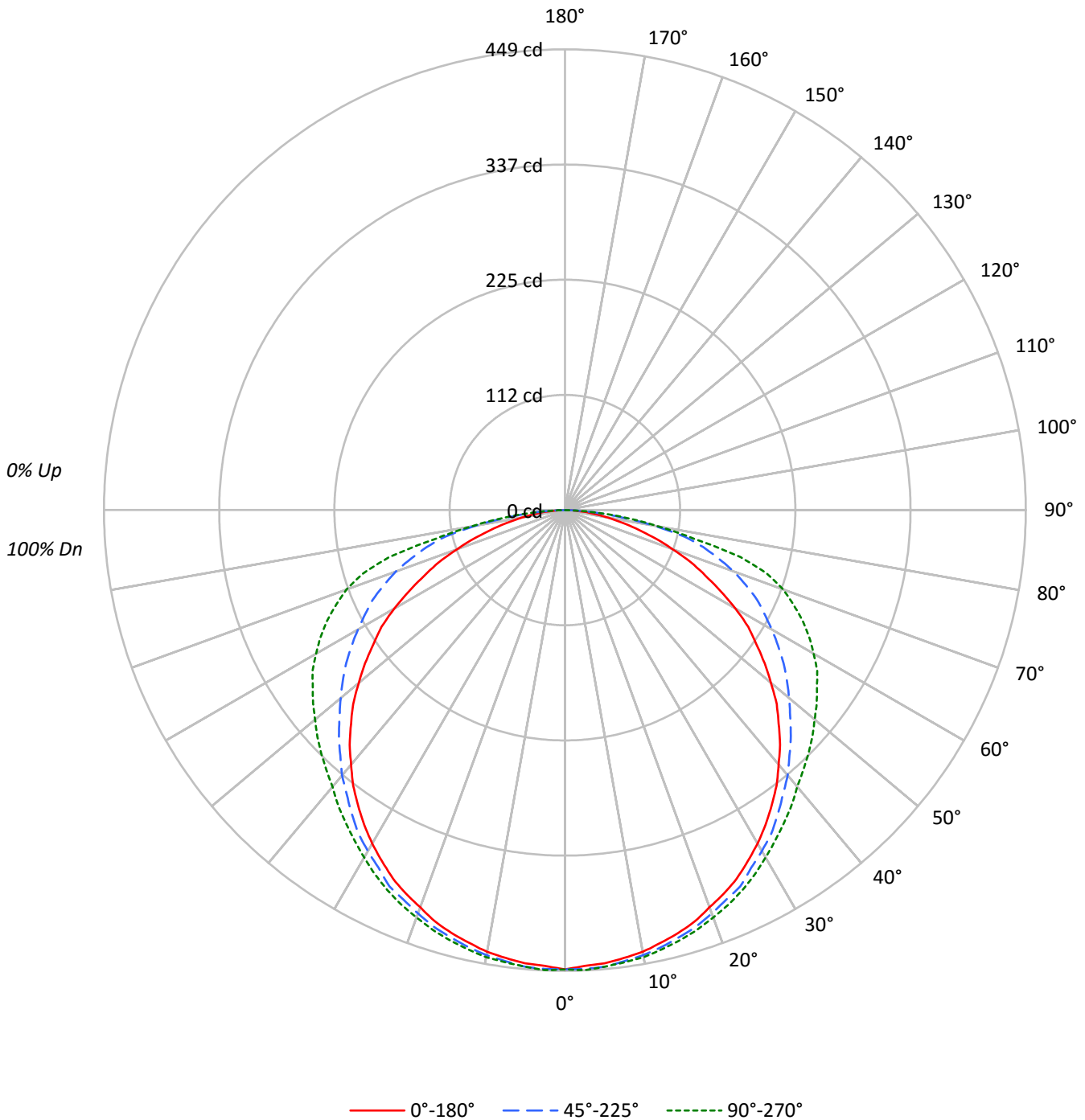
Input Watts (W): 19.7
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	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°	1204	1204	1204
5°	1198	1206	1206
10°	1194	1203	1209
15°	1189	1200	1209
20°	1180	1198	1210
25°	1177	1201	1214
30°	1166	1192	1215
35°	1154	1188	1222
40°	1138	1186	1237
45°	1121	1185	1277
50°	1097	1194	1330
55°	1067	1220	1407
60°	1032	1252	1506
65°	961	1315	1629
70°	883	1378	1781
75°	774	1449	1842
80°	666	1381	1446
85°	584	1003	1099



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	42.3	3.0
10°-20°	121.6	8.5
20°-30°	185.5	13.0
30°-40°	226.5	15.9
40°-50°	242.1	17.0
50°-60°	233.7	16.4
60°-70°	201.2	14.1
70°-80°	136.1	9.6
80°-90°	35.9	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°	349.4	24.5
0°-40°	575.9	40.4
0°-60°	1051.7	73.8
0°-90°	1425.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1425.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	448	448	448	448	448	
5°	443	444	447	447	447	42
15°	427	428	431	433	434	120
25°	396	398	405	407	409	182
35°	351	354	362	369	372	220
45°	295	300	311	327	336	227
55°	228	235	260	286	300	204
65°	151	166	206	239	256	150
75°	74	98	139	168	177	80
85°	19	26	32	34	36	21
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	447.6	447.6	447.6	447.6	447.6
2.5°	444.5	445.5	447.6	447.6	448.7
5°	443.4	444.5	446.6	446.6	446.6
7.5°	440.3	441.3	443.4	444.5	444.5
10°	437.1	438.2	440.3	441.3	442.4
12.5°	431.9	432.9	436.1	438.2	438.2
15°	426.7	427.7	430.8	432.9	434.0
17.5°	420.4	422.5	425.6	427.7	428.7
20°	412.0	414.1	418.3	421.4	422.5
22.5°	404.6	406.7	410.9	414.1	416.2
25°	396.3	398.3	404.6	406.7	408.8
27.5°	385.8	387.9	393.1	397.3	400.4
30°	375.3	377.4	383.7	388.9	391.0
32.5°	363.8	366.9	374.2	378.4	381.6
35°	351.2	354.3	361.7	369.0	372.1
37.5°	338.6	341.7	349.1	358.5	362.7
40°	323.9	328.1	337.5	350.1	352.2
42.5°	310.3	315.5	323.9	338.6	343.8
45°	294.6	299.8	311.3	327.1	335.5
47.5°	279.9	285.1	297.7	316.6	327.1
50°	262.1	269.4	285.1	307.1	317.6
52.5°	245.3	251.6	272.6	296.7	309.2
55°	227.5	234.8	260.0	286.2	299.8
57.5°	211.8	218.0	246.3	275.7	291.4
60°	191.8	200.2	232.7	264.2	279.9
62.5°	170.9	183.4	219.1	251.6	268.4
65°	151.0	165.6	206.5	239.0	255.8
67.5°	133.1	148.9	190.8	225.4	241.1
70°	112.2	132.1	175.1	208.6	226.4
72.5°	93.3	115.3	157.2	190.8	206.5
75°	74.4	98.5	139.4	167.7	177.2
77.5°	57.7	80.7	119.5	127.9	128.9
80°	43.0	63.9	89.1	90.2	93.3
82.5°	29.4	45.1	57.7	62.9	63.9
85°	18.9	26.2	32.5	33.5	35.6
87.5°	8.4	9.4	11.5	10.5	10.5
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)