

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: P310307

Luminaire Tested: **24FCZ2-55HE-UNV-L82765-RDP-CP250-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: P310307
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1808-918-19)
Test Lab: INNOVATION CENTER(G3)
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: FAIL-SAFE
Catalog Number: 24FCZ2-55HE-UNV-L82765-RDP-CP250-W2A-U-5500K
Description: 2'X4' TROFFER LED MODULE, SMOOTH LENS WITH INSERT, 0.250" POLYCARB SHEET
Light Source: (336) 5500K 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: 3293.0 lumens
Efficiency: N/A
Efficacy: 74.3 lumens/watt
Spacing Criteria (0/90/45): 1.26 / 1.3 / 1.41
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

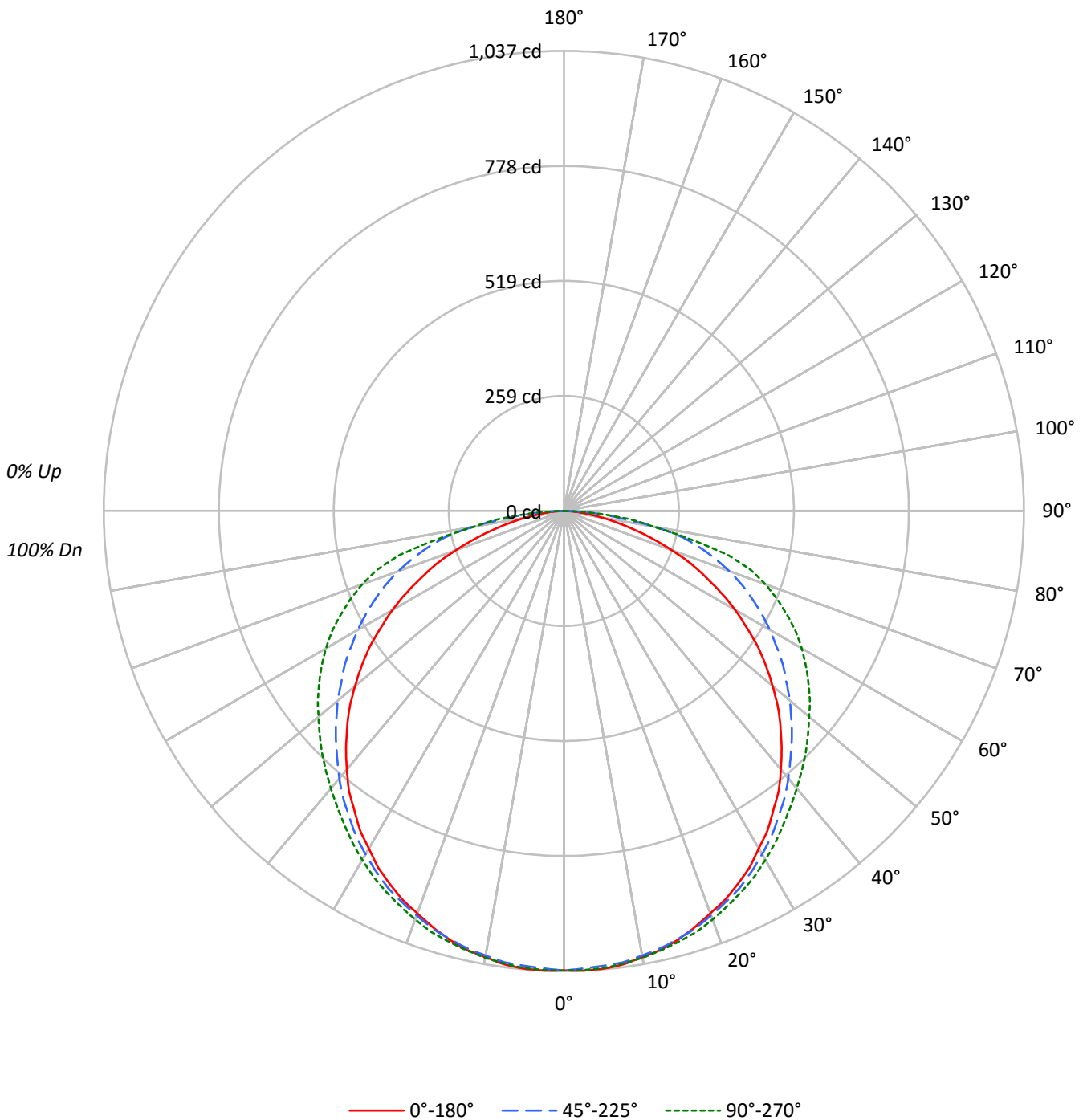
Input Watts (W): 44.3
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	93	89	92	89	87	88	86	84	82
2	97	89	81	75	95	87	80	74	83	77	72	80	75	71	77	73	69	67
3	88	77	68	62	86	76	68	61	72	66	60	70	64	59	67	62	58	56
4	81	68	59	52	78	67	58	51	64	57	51	62	55	50	59	54	49	47
5	74	60	51	44	72	59	51	44	57	49	43	55	48	43	53	47	42	40
6	68	54	45	38	66	53	45	38	51	44	38	50	43	37	48	42	37	35
7	63	49	40	34	61	48	40	34	47	39	33	45	38	33	44	38	33	31
8	59	45	36	30	57	44	36	30	43	35	30	41	34	29	40	34	29	27
9	55	41	33	27	53	40	32	27	39	32	27	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°	1393	1393	1393
5°	1399	1390	1396
10°	1395	1390	1397
15°	1392	1390	1399
20°	1382	1389	1403
25°	1377	1392	1406
30°	1365	1388	1411
35°	1352	1384	1417
40°	1337	1383	1434
45°	1315	1383	1467
50°	1285	1392	1511
55°	1253	1414	1578
60°	1200	1442	1666
65°	1123	1493	1768
70°	1022	1561	1902
75°	866	1647	1987
80°	683	1658	1607
85°	505	1261	1413



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	98.2	3.0
10°-20°	282.7	8.6
20°-30°	432.3	13.1
30°-40°	528.5	16.0
40°-50°	563.3	17.1
50°-60°	538.6	16.4
60°-70°	456.2	13.9
70°-80°	306.6	9.3
80°-90°	86.5	2.6
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°	813.3	24.7
0°-40°	1341.8	40.7
0°-60°	2443.6	74.2
0°-90°	3293.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3293.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1036	1036	1036	1036	1036	
5°	1036	1034	1029	1034	1034	98
15°	1000	1000	998	1006	1004	282
25°	928	931	938	946	947	428
35°	823	830	843	859	862	516
45°	691	702	727	758	771	533
55°	534	554	603	650	673	476
65°	353	389	469	531	555	350
75°	167	227	317	371	382	178
85°	33	67	82	88	92	40
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1035.6	1035.6	1035.6	1035.6	1035.6
2.5°	1037.2	1037.2	1032.3	1035.6	1035.6
5°	1035.6	1033.9	1029.0	1033.9	1033.9
7.5°	1030.7	1029.0	1025.8	1030.7	1029.0
10°	1020.9	1020.9	1017.6	1022.5	1022.5
12.5°	1012.7	1011.1	1009.4	1016.0	1014.3
15°	999.6	999.6	998.0	1006.2	1004.5
17.5°	983.3	984.9	986.6	993.1	994.7
20°	965.3	968.6	970.2	980.0	980.0
22.5°	949.0	950.6	953.9	963.7	963.7
25°	927.8	931.0	937.6	945.7	947.4
27.5°	906.5	908.2	916.3	927.8	929.4
30°	878.8	883.7	893.5	906.5	908.2
32.5°	854.3	859.2	870.6	883.7	886.9
35°	823.2	829.8	842.8	859.2	862.4
37.5°	795.4	800.3	816.7	834.7	839.6
40°	761.1	770.9	787.3	808.5	816.7
42.5°	726.8	736.6	756.2	784.0	793.8
45°	690.9	702.3	726.8	757.9	770.9
47.5°	655.0	668.0	695.8	731.7	746.4
50°	614.1	630.5	664.8	705.6	721.9
52.5°	574.9	594.5	632.1	677.8	699.1
55°	534.1	553.7	602.7	650.1	672.9
57.5°	488.4	514.5	568.4	622.3	646.8
60°	445.9	470.4	535.7	594.5	619.0
62.5°	400.2	432.8	503.1	565.1	589.6
65°	352.8	388.7	468.8	530.8	555.3
67.5°	310.3	349.5	434.5	496.5	521.0
70°	259.7	308.7	396.9	459.0	483.5
72.5°	212.3	266.2	357.7	418.1	441.0
75°	166.6	227.0	316.9	370.8	382.2
77.5°	124.1	187.8	274.4	297.3	289.1
80°	88.2	150.3	214.0	202.5	207.4
82.5°	57.2	114.3	132.3	150.3	155.2
85°	32.7	67.0	81.7	88.2	91.5
87.5°	14.7	24.5	32.7	32.7	31.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)