

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: METALUX

Report Number: P276608

Luminaire Tested: **24CZ2-35HE-S-UNV-L92765-W2A1-U-3500K**

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: P276608
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1805-783-1)
Test Lab: INNOVATION CENTER(G3)
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 24CZ2-35HE-S-UNV-L92765-W2A1-U-3500K
Description: CRUZE 2.0 2x4 TUNABLE WHITE LED TROFFER WITH SMOOTH LENS
Light Source: (336) 90 CRI LEDS TUNED TO 3500K CCT
Ballast/Driver: ELECTRONIC DRIVER
Luminaire Equipment: Sample No. Condition Description

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2992.9 lumens
Efficiency: N/A
Efficacy: 123.3 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.26 / 1.35
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

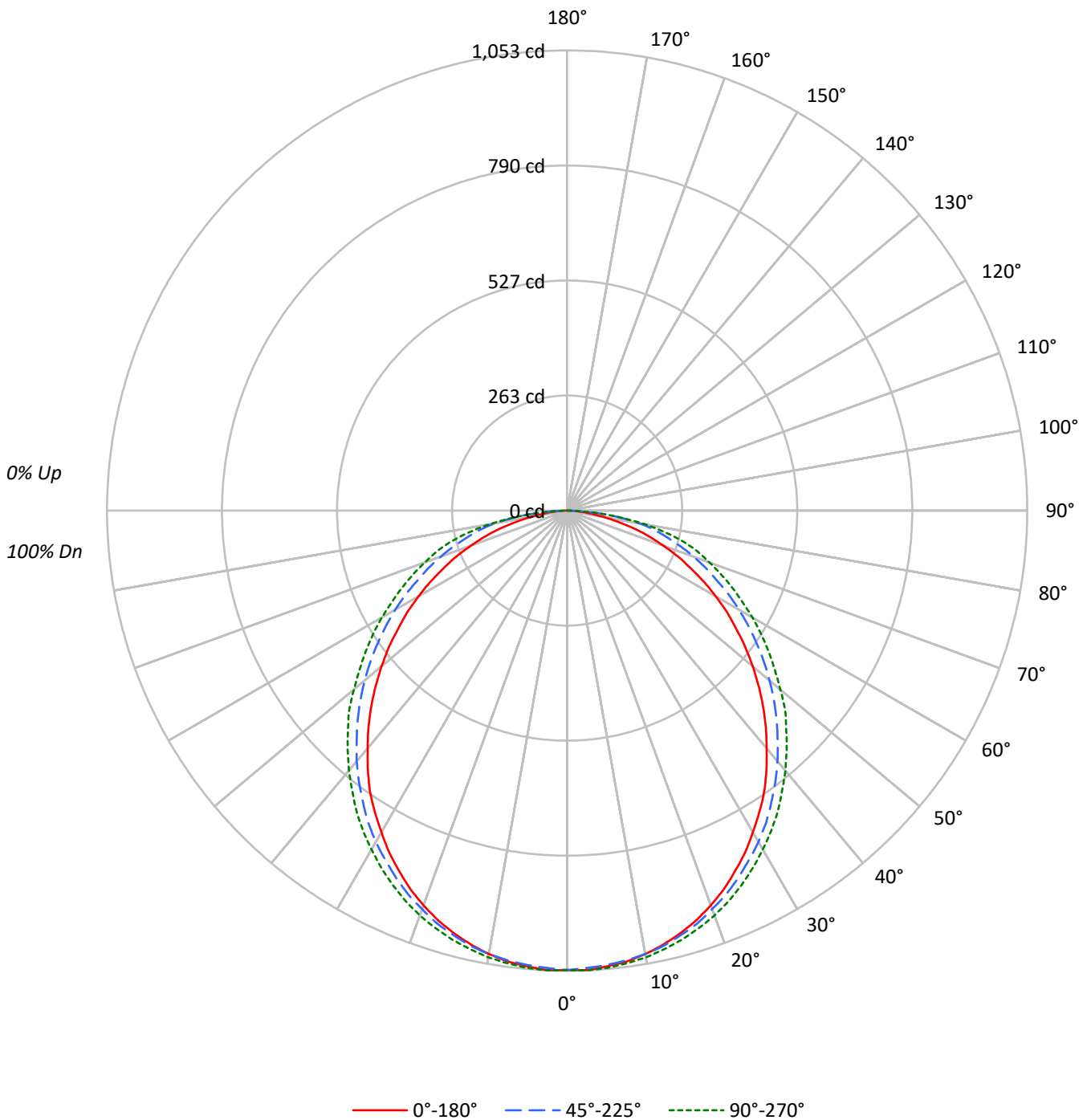
Input Watts (W): 24.273
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	99	95	106	101	97	93	97	93	90	93	90	88	89	87	85	83
2	98	90	83	77	96	88	81	76	84	79	74	81	76	72	78	74	71	69
3	89	79	70	64	87	77	69	63	74	67	62	71	66	61	69	64	60	58
4	82	70	61	54	80	68	60	54	66	59	53	63	57	52	61	56	51	49
5	75	62	53	46	73	61	53	46	59	51	46	57	50	45	55	49	45	42
6	70	56	47	40	68	55	47	40	53	46	40	52	45	40	50	44	39	37
7	64	51	42	36	63	50	42	36	48	41	35	47	40	35	46	39	35	33
8	60	46	38	32	58	46	37	32	44	37	32	43	36	31	42	36	31	29
9	56	43	34	29	55	42	34	29	41	34	28	40	33	28	39	33	28	26
10	53	39	31	26	51	39	31	26	38	31	26	37	30	26	36	30	26	24

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	1415	1415	1415
5°	1414	1410	1419
10°	1408	1408	1418
15°	1394	1401	1416
20°	1376	1390	1412
25°	1351	1376	1403
30°	1320	1360	1391
35°	1291	1338	1380
40°	1247	1316	1364
45°	1207	1290	1349
50°	1160	1266	1333
55°	1108	1242	1320
60°	1056	1223	1318
65°	990	1202	1326
70°	916	1208	1361
75°	820	1231	1438
80°	663	1304	1407
85°	499	1145	1116



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	99.5	3.3
10°-20°	284.4	9.5
20°-30°	427.6	14.3
30°-40°	509.3	17.0
40°-50°	521.2	17.4
50°-60°	469.2	15.7
60°-70°	368.5	12.3
70°-80°	239.2	8.0
80°-90°	74.0	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°	811.5	27.1
0°-40°	1320.8	44.1
0°-60°	2311.3	77.2
0°-90°	2992.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2992.9	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1051	1051	1051	1051	1051	
5°	1047	1049	1044	1050	1050	99
15°	1001	1004	1006	1014	1016	282
25°	910	917	927	942	945	419
35°	786	796	815	835	840	490
45°	634	649	678	704	709	489
55°	472	493	530	557	563	424
65°	311	335	377	409	416	309
75°	158	188	237	269	277	167
85°	32	60	74	72	72	39
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1051.4	1051.4	1051.4	1051.4	1051.4
2.5°	1052.4	1052.4	1047.6	1052.4	1053.3
5°	1046.7	1048.6	1043.8	1049.5	1050.5
7.5°	1041.0	1041.0	1038.1	1043.8	1044.8
10°	1030.5	1031.5	1030.5	1037.2	1038.1
12.5°	1017.2	1019.1	1020.1	1026.7	1027.7
15°	1001.0	1003.9	1005.8	1014.4	1016.3
17.5°	983.0	985.8	990.6	1000.1	1002.0
20°	961.1	964.9	970.6	983.0	985.8
22.5°	937.4	941.2	950.7	962.1	966.8
25°	909.8	917.4	926.9	942.1	945.0
27.5°	882.2	888.9	901.2	917.4	921.2
30°	849.9	860.3	875.6	891.7	895.5
32.5°	818.5	829.0	847.0	864.2	868.9
35°	786.2	795.7	814.7	834.7	840.4
37.5°	749.1	761.5	782.4	802.4	808.1
40°	710.1	725.4	749.1	770.0	776.7
42.5°	673.1	689.2	713.0	735.8	743.4
45°	634.1	649.3	677.8	703.5	709.2
47.5°	594.2	611.3	641.7	667.4	676.9
50°	554.2	572.3	604.6	631.2	636.9
52.5°	514.3	533.3	567.5	596.1	598.9
55°	472.5	493.4	529.5	557.1	562.8
57.5°	434.5	452.5	491.5	520.0	526.7
60°	392.6	412.6	454.4	481.0	489.6
62.5°	352.7	373.6	417.3	444.0	451.6
65°	310.9	334.6	377.4	408.8	416.4
67.5°	274.7	297.6	343.2	373.6	381.2
70°	232.9	258.6	307.1	338.4	346.0
72.5°	196.8	223.4	271.9	302.3	313.7
75°	157.8	188.2	236.7	269.0	276.6
77.5°	119.8	155.0	204.4	229.1	229.1
80°	85.6	122.6	168.3	179.7	181.6
82.5°	56.1	92.2	124.5	123.6	123.6
85°	32.3	59.9	74.2	72.3	72.3
87.5°	12.4	24.7	26.6	26.6	25.7
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)