

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: P276605

Luminaire Tested: **24CZ2-30HE-S-UNV-L92765-W2A1-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: P276605
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: 24CZ2-30HE-S-UNV-L92765-W2A1-U-6500K
Description: CRUZE 2.0 2x4 TUNABLE WHITE LED TROFFER WITH SMOOTH LENS
Light Source: (336) 90 CRI LEDS TUNED TO 6500K CCT
Ballast/Driver: ELECTRONIC DRIVER
Luminaire Equipment: Sample No. Condition Description

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2896.5 lumens
Efficiency: N/A
Efficacy: 140.9 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

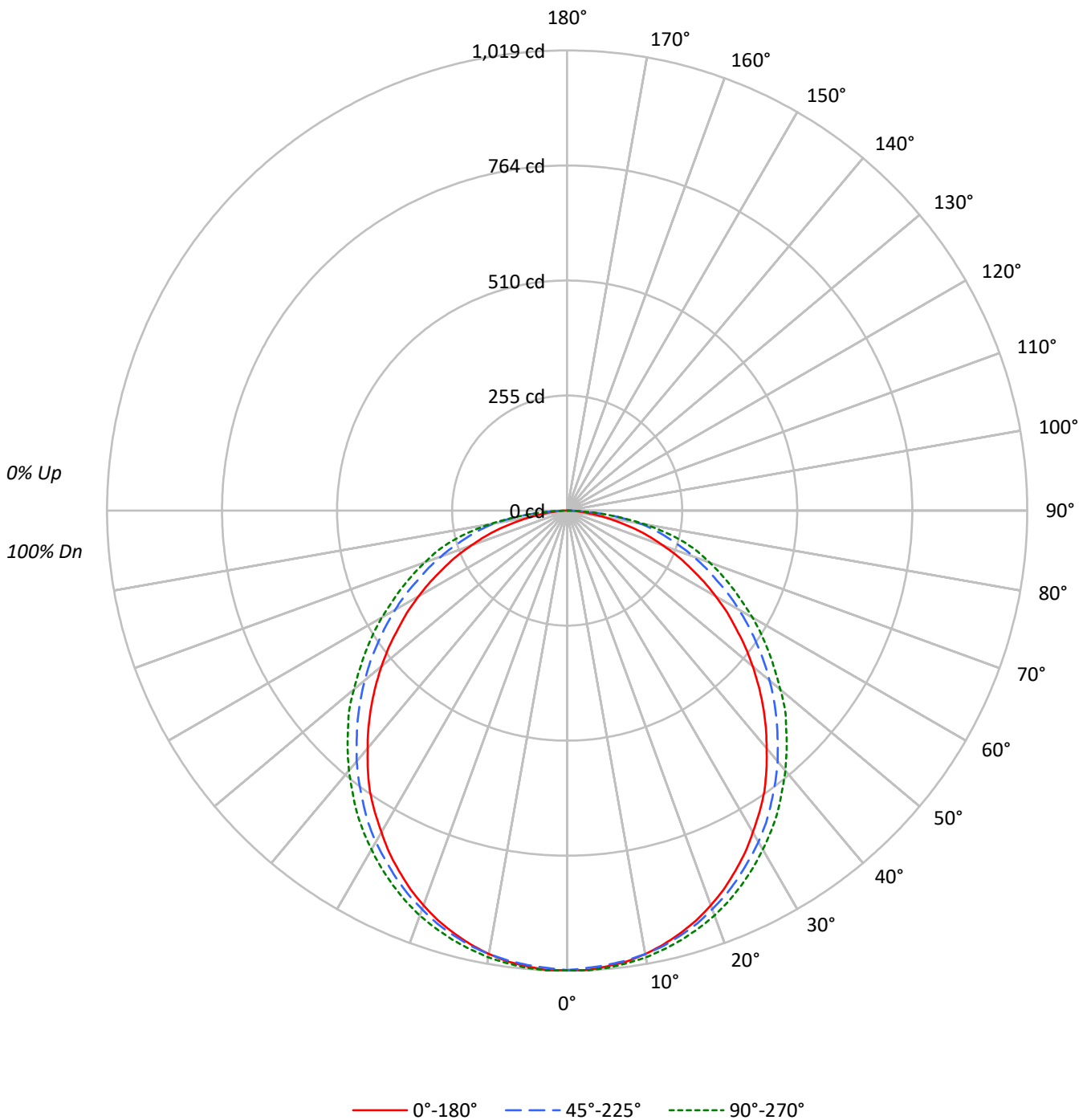
Input Watts (W): 20.553
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	1369	1369	1369
5°	1368	1364	1373
10°	1363	1363	1373
15°	1349	1356	1370
20°	1332	1345	1366
25°	1307	1332	1358
30°	1278	1317	1347
35°	1250	1295	1336
40°	1207	1273	1320
45°	1168	1248	1306
50°	1123	1225	1290
55°	1073	1202	1278
60°	1023	1183	1275
65°	958	1163	1283
70°	887	1169	1317
75°	794	1191	1392
80°	642	1261	1361
85°	483	1108	1079



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	96.3	3.3
10°-20°	275.3	9.5
20°-30°	413.8	14.3
30°-40°	492.9	17.0
40°-50°	504.4	17.4
50°-60°	454.1	15.7
60°-70°	356.7	12.3
70°-80°	231.5	8.0
80°-90°	71.6	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°	785.4	27.1
0°-40°	1278.2	44.1
0°-60°	2236.8	77.2
0°-90°	2896.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2896.5	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1018	1018	1018	1018	1018	
5°	1013	1015	1010	1016	1017	96
15°	969	972	973	982	984	273
25°	880	888	897	912	914	406
35°	761	770	788	808	813	475
45°	614	628	656	681	686	473
55°	457	478	512	539	545	410
65°	301	324	365	396	403	299
75°	153	182	229	260	268	162
85°	31	58	72	70	70	38
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1017.6	1017.6	1017.6	1017.6	1017.6
2.5°	1018.5	1018.5	1013.9	1018.5	1019.4
5°	1013.0	1014.8	1010.2	1015.7	1016.6
7.5°	1007.4	1007.4	1004.7	1010.2	1011.1
10°	997.3	998.2	997.3	1003.8	1004.7
12.5°	984.4	986.3	987.2	993.6	994.6
15°	968.8	971.6	973.4	981.7	983.5
17.5°	951.3	954.1	958.7	967.9	969.7
20°	930.2	933.8	939.4	951.3	954.1
22.5°	907.2	910.8	920.0	931.1	935.7
25°	880.5	887.8	897.0	911.8	914.5
27.5°	853.8	860.2	872.2	887.8	891.5
30°	822.5	832.6	847.4	863.0	866.7
32.5°	792.2	802.3	819.8	836.3	840.9
35°	760.9	770.1	788.5	807.8	813.3
37.5°	725.0	736.9	757.2	776.5	782.0
40°	687.3	702.0	725.0	745.2	751.7
42.5°	651.4	667.0	690.0	712.1	719.5
45°	613.7	628.4	656.0	680.8	686.3
47.5°	575.0	591.6	621.0	645.9	655.1
50°	536.4	553.9	585.1	610.9	616.4
52.5°	497.7	516.1	549.3	576.9	579.6
55°	457.3	477.5	512.5	539.1	544.7
57.5°	420.5	437.9	475.7	503.3	509.7
60°	380.0	399.3	439.8	465.5	473.8
62.5°	341.3	361.6	403.9	429.7	437.0
65°	300.9	323.9	365.3	395.6	403.0
67.5°	265.9	288.0	332.1	361.6	368.9
70°	225.4	250.2	297.2	327.5	334.9
72.5°	190.4	216.2	263.1	292.6	303.6
75°	152.7	182.2	229.1	260.4	267.7
77.5°	115.9	150.0	197.8	221.7	221.7
80°	82.8	118.7	162.8	173.9	175.7
82.5°	54.3	89.2	120.5	119.6	119.6
85°	31.3	58.0	71.8	69.9	69.9
87.5°	12.0	23.9	25.8	25.8	24.8
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)