

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: P276601

Luminaire Tested: **24CZ2-30HE-S-UNV-L92765-W2A1-U-4500K**

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: P276601
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-4500K
Description: CRUZE 2.0 2x4 TUNABLE WHITE LED TROFFER WITH SMOOTH LENS
Light Source: (336) 90 CRI LEDS TUNED TO 4500K CCT
Ballast/Driver: ELECTRONIC DRIVER
Luminaire Equipment: Sample No. Condition Description

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2765.3 lumens
Efficiency: N/A
Efficacy: 138.3 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

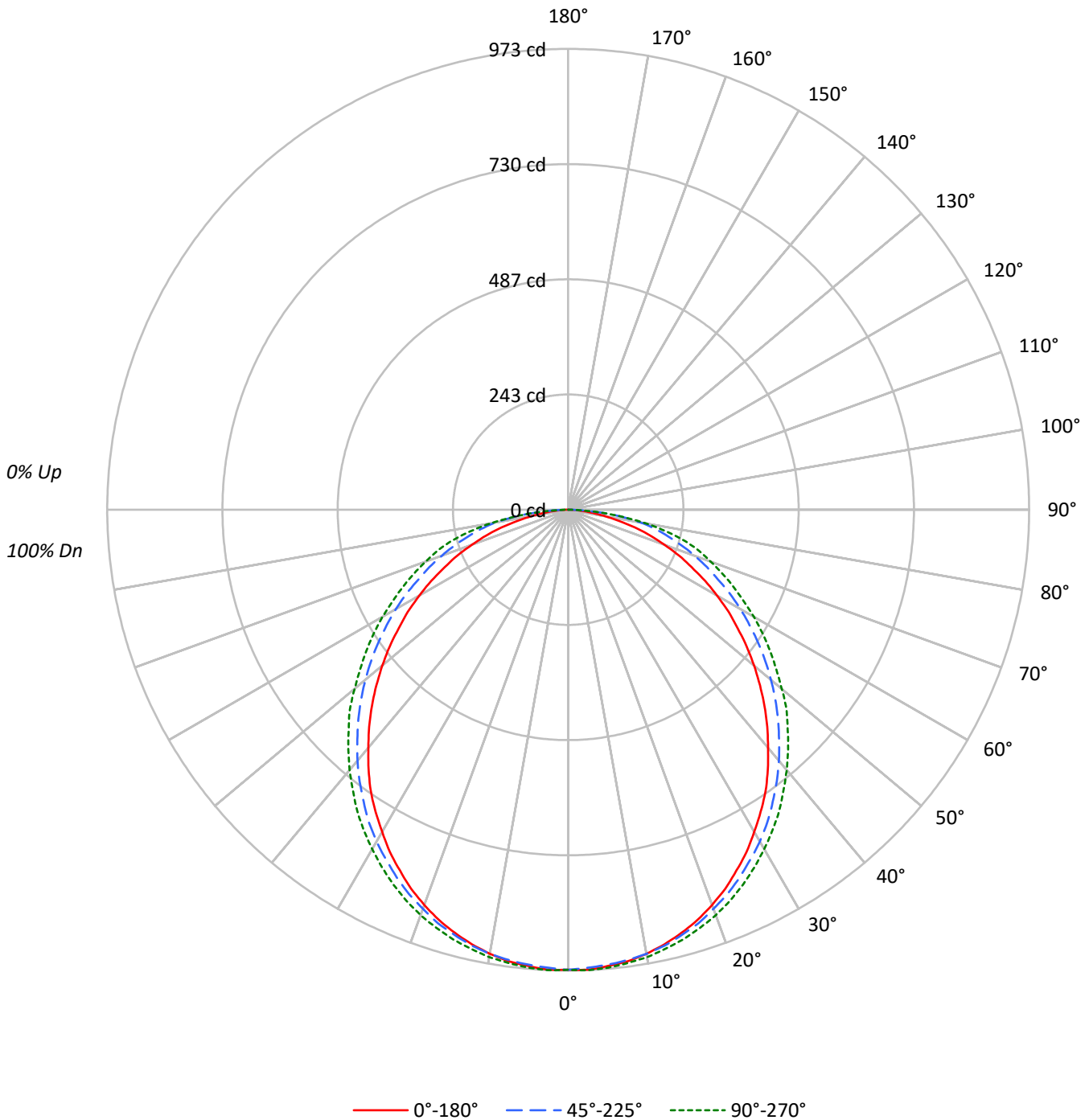
Input Watts (W): 19.995
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	1307	1307	1307
5°	1306	1303	1311
10°	1301	1301	1311
15°	1288	1294	1308
20°	1271	1284	1304
25°	1248	1271	1296
30°	1220	1257	1285
35°	1193	1237	1275
40°	1152	1216	1260
45°	1115	1192	1247
50°	1072	1169	1232
55°	1024	1148	1220
60°	976	1130	1217
65°	914	1110	1225
70°	847	1116	1258
75°	758	1137	1329
80°	613	1205	1300
85°	462	1057	1031



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	92.0	3.3
10°-20°	262.8	9.5
20°-30°	395.0	14.3
30°-40°	470.5	17.0
40°-50°	481.6	17.4
50°-60°	433.6	15.7
60°-70°	340.5	12.3
70°-80°	221.0	8.0
80°-90°	68.3	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°	749.8	27.1
0°-40°	1220.3	44.1
0°-60°	2135.5	77.2
0°-90°	2765.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2765.3	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	972	972	972	972	972	
5°	967	969	964	970	971	92
15°	925	928	929	937	939	261
25°	841	848	856	870	873	387
35°	726	735	753	771	776	453
45°	586	600	626	650	655	452
55°	436	456	489	515	520	391
65°	287	309	349	378	385	286
75°	146	174	219	249	256	154
85°	30	55	68	67	67	36
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	971.5	971.5	971.5	971.5	971.5
2.5°	972.3	972.3	968.0	972.3	973.2
5°	967.1	968.8	964.4	969.7	970.6
7.5°	961.8	961.8	959.2	964.4	965.3
10°	952.1	953.0	952.1	958.3	959.2
12.5°	939.8	941.6	942.5	948.6	949.5
15°	924.9	927.5	929.3	937.2	939.0
17.5°	908.2	910.9	915.3	924.0	925.8
20°	888.0	891.5	896.8	908.2	910.9
22.5°	866.1	869.6	878.4	888.9	893.3
25°	840.6	847.6	856.4	870.5	873.1
27.5°	815.1	821.3	832.7	847.6	851.1
30°	785.3	794.9	809.0	823.9	827.4
32.5°	756.3	765.9	782.6	798.4	802.8
35°	726.4	735.2	752.8	771.2	776.5
37.5°	692.1	703.6	722.9	741.3	746.6
40°	656.1	670.2	692.1	711.5	717.6
42.5°	621.9	636.8	658.8	679.9	686.9
45°	585.9	599.9	626.3	650.0	655.3
47.5°	549.0	564.8	592.9	616.6	625.4
50°	512.1	528.8	558.6	583.2	588.5
52.5°	475.2	492.8	524.4	550.7	553.4
55°	436.5	455.9	489.2	514.7	520.0
57.5°	401.4	418.1	454.1	480.5	486.6
60°	362.8	381.2	419.9	444.4	452.4
62.5°	325.9	345.2	385.6	410.2	417.2
65°	287.2	309.2	348.7	377.7	384.7
67.5°	253.8	274.9	317.1	345.2	352.2
70°	215.2	238.9	283.7	312.7	319.7
72.5°	181.8	206.4	251.2	279.3	289.9
75°	145.8	173.9	218.7	248.6	255.6
77.5°	110.7	143.2	188.8	211.7	211.7
80°	79.1	113.3	155.5	166.0	167.8
82.5°	51.8	85.2	115.1	114.2	114.2
85°	29.9	55.3	68.5	66.8	66.8
87.5°	11.4	22.8	24.6	24.6	23.7
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)