

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: P276387

Luminaire Tested: **24CZ2-30HE-S-UNV-L93050-W2A1-U-3000K**

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: P276387
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-L93050-W2A1-U-3000K
Description: CRUZE 2.0 2x4 TUNABLE WHITE LED TROFFER WITH SMOOTH LENS
Light Source: (336) 90 CRI LEDS TUNED TO 3000K CCT
Ballast/Driver: ELECTRONIC DRIVER
Luminaire Equipment: Sample No. Condition Description

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2374.1 lumens
Efficiency: N/A
Efficacy: 118.3 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.27 / 1.35
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

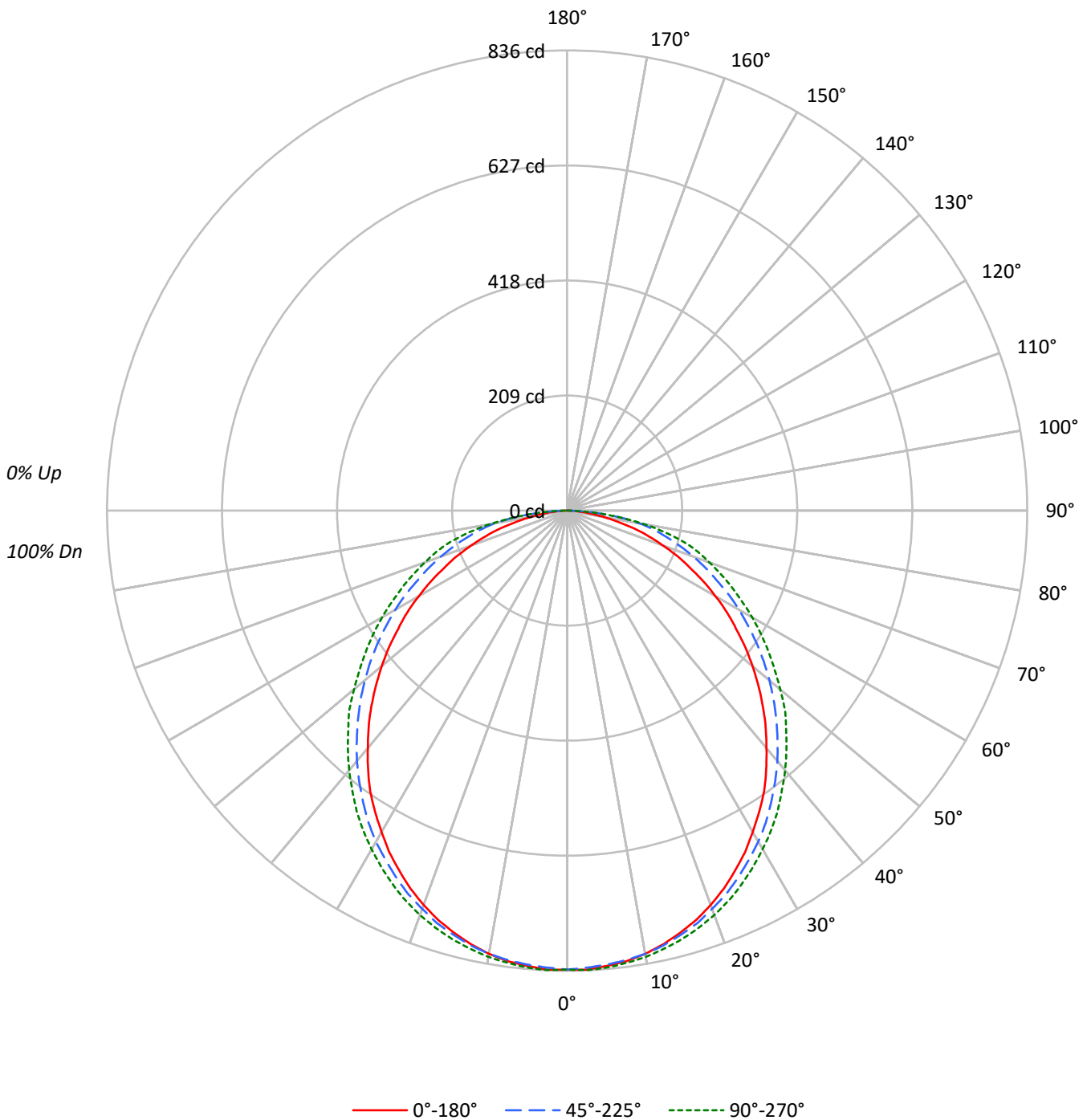
Input Watts (W): 20.074329
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	1122	1122	1122
5°	1121	1118	1125
10°	1117	1117	1125
15°	1106	1111	1123
20°	1092	1102	1120
25°	1071	1092	1113
30°	1047	1079	1104
35°	1024	1062	1095
40°	989	1044	1082
45°	957	1023	1071
50°	920	1004	1058
55°	879	985	1047
60°	838	970	1045
65°	785	953	1052
70°	727	958	1080
75°	651	976	1141
80°	526	1034	1116
85°	395	908	885



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	79.0	3.3
10°-20°	225.6	9.5
20°-30°	339.2	14.3
30°-40°	404.0	17.0
40°-50°	413.5	17.4
50°-60°	372.2	15.7
60°-70°	292.3	12.3
70°-80°	189.7	8.0
80°-90°	58.7	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°	643.7	27.1
0°-40°	1047.7	44.1
0°-60°	1833.4	77.2
0°-90°	2374.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2374.1	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	834	834	834	834	834	
5°	830	832	828	832	833	79
15°	794	796	798	805	806	224
25°	722	728	735	747	750	332
35°	624	631	646	662	667	389
45°	503	515	538	558	563	388
55°	375	391	420	442	446	336
65°	247	265	299	324	330	245
75°	125	149	188	213	219	132
85°	26	48	59	57	57	31
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	834.0	834.0	834.0	834.0	834.0
2.5°	834.8	834.8	831.0	834.8	835.6
5°	830.3	831.8	828.0	832.5	833.3
7.5°	825.7	825.7	823.5	828.0	828.8
10°	817.5	818.2	817.5	822.7	823.5
12.5°	806.9	808.4	809.2	814.4	815.2
15°	794.1	796.3	797.8	804.6	806.1
17.5°	779.7	782.0	785.8	793.3	794.8
20°	762.4	765.4	769.9	779.7	782.0
22.5°	743.5	746.6	754.1	763.2	766.9
25°	721.7	727.7	735.3	747.3	749.6
27.5°	699.8	705.1	714.9	727.7	730.7
30°	674.2	682.5	694.5	707.4	710.4
32.5°	649.3	657.6	671.9	685.5	689.3
35°	623.6	631.2	646.3	662.1	666.6
37.5°	594.2	604.0	620.6	636.5	641.0
40°	563.3	575.4	594.2	610.8	616.1
42.5°	533.9	546.7	565.6	583.7	589.7
45°	503.0	515.1	537.7	558.0	562.6
47.5°	471.3	484.9	509.0	529.4	536.9
50°	439.6	454.0	479.6	500.7	505.3
52.5°	408.0	423.1	450.2	472.8	475.1
55°	374.8	391.4	420.0	441.9	446.4
57.5°	344.6	359.0	389.9	412.5	417.8
60°	311.4	327.3	360.5	381.6	388.4
62.5°	279.8	296.4	331.1	352.2	358.2
65°	246.6	265.4	299.4	324.3	330.3
67.5°	217.9	236.0	272.2	296.4	302.4
70°	184.8	205.1	243.6	268.5	274.5
72.5°	156.1	177.2	215.7	239.8	248.9
75°	125.2	149.3	187.8	213.4	219.4
77.5°	95.0	122.9	162.1	181.7	181.7
80°	67.9	97.3	133.5	142.5	144.0
82.5°	44.5	73.1	98.8	98.0	98.0
85°	25.6	47.5	58.8	57.3	57.3
87.5°	9.8	19.6	21.1	21.1	20.4
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)