

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: P276389

Luminaire Tested: **24CZ2-30HE-S-UNV-L93050-W2A1-U-4000K**

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: P276389  
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-4000K  
Description: CRUZE 2.0 2x4 TUNABLE WHITE LED TROFFER WITH SMOOTH LENS  
Light Source: (336) 90 CRI LEDS TUNED TO 4000K CCT  
Ballast/Driver: ELECTRONIC DRIVER  
Luminaire Equipment: Sample No.   Condition   Description

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 2801.3 lumens  
Efficiency: N/A  
Efficacy: 139.1 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

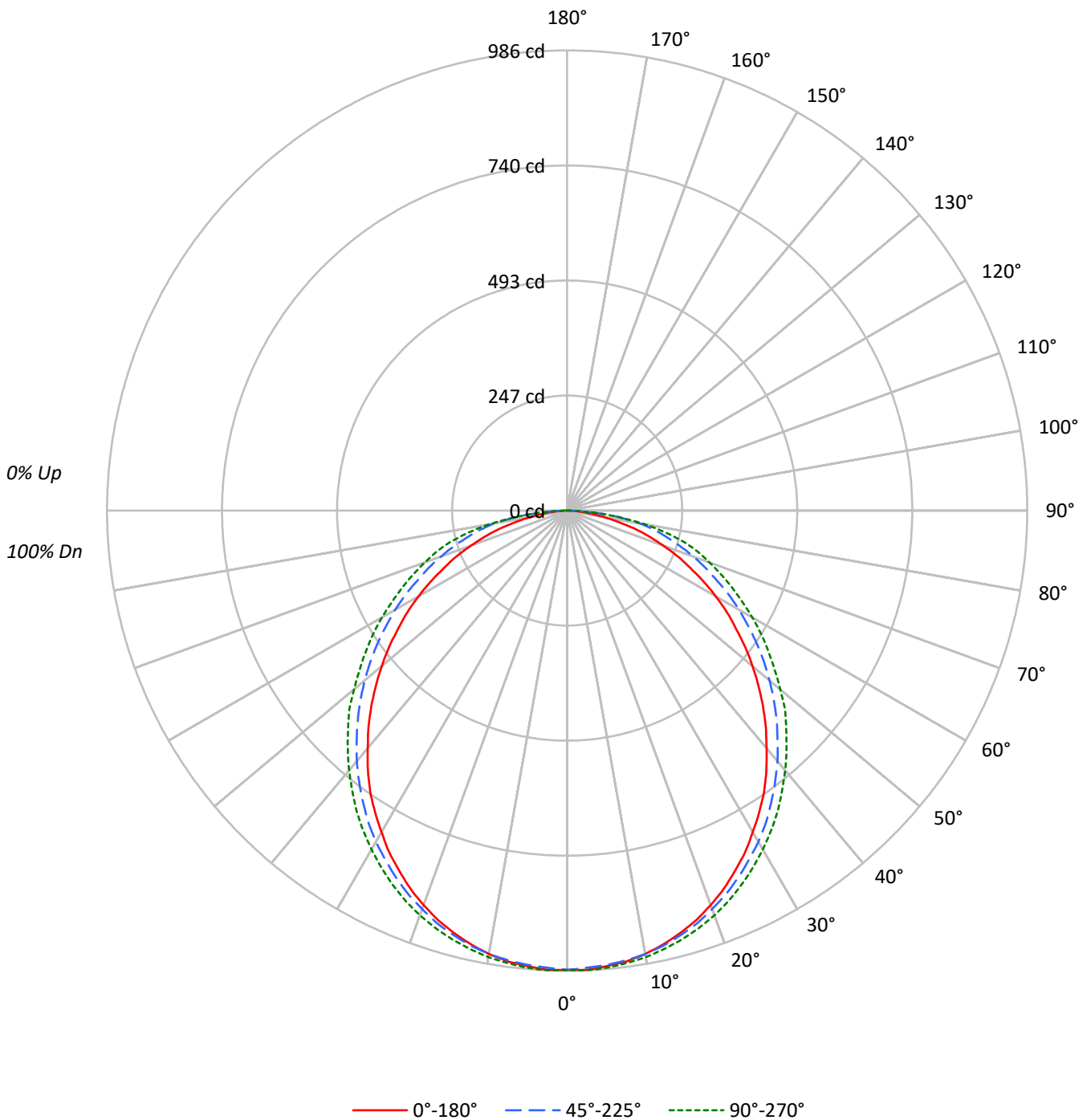
Input Watts (W): 20.133198  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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°	1324	1324	1324
5°	1323	1320	1328
10°	1318	1318	1328
15°	1305	1311	1325
20°	1288	1301	1321
25°	1264	1288	1313
30°	1236	1273	1302
35°	1209	1253	1292
40°	1167	1232	1277
45°	1129	1207	1263
50°	1086	1185	1248
55°	1037	1163	1236
60°	989	1144	1233
65°	926	1125	1241
70°	858	1131	1274
75°	768	1152	1346
80°	621	1220	1317
85°	468	1071	1044



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	93.2	3.3
10°-20°	266.2	9.5
20°-30°	400.2	14.3
30°-40°	476.7	17.0
40°-50°	487.9	17.4
50°-60°	439.2	15.7
60°-70°	344.9	12.3
70°-80°	223.9	8.0
80°-90°	69.2	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°	759.6	27.1
0°-40°	1236.2	44.1
0°-60°	2163.3	77.2
0°-90°	2801.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2801.3	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	984	984	984	984	984	
5°	980	982	977	982	983	93
15°	937	940	941	949	951	264
25°	852	859	868	882	884	392
35°	736	745	763	781	787	459
45°	594	608	634	658	664	458
55°	442	462	496	521	527	396
65°	291	313	353	383	390	290
75°	148	176	222	252	259	156
85°	30	56	69	68	68	37
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	984.1	984.1	984.1	984.1	984.1
2.5°	985.0	985.0	980.6	985.0	985.9
5°	979.7	981.5	977.0	982.3	983.2
7.5°	974.3	974.3	971.7	977.0	977.9
10°	964.6	965.4	964.6	970.8	971.7
12.5°	952.1	953.9	954.8	961.0	961.9
15°	937.0	939.6	941.4	949.4	951.2
17.5°	920.1	922.7	927.2	936.1	937.9
20°	899.6	903.2	908.5	920.1	922.7
22.5°	877.4	880.9	889.8	900.5	904.9
25°	851.5	858.7	867.6	881.8	884.5
27.5°	825.7	832.0	843.5	858.7	862.2
30°	795.5	805.3	819.5	834.6	838.2
32.5°	766.1	775.9	792.8	808.8	813.3
35°	735.9	744.8	762.6	781.3	786.6
37.5°	701.2	712.7	732.3	751.0	756.3
40°	664.7	678.9	701.2	720.7	727.0
42.5°	630.0	645.1	667.4	688.7	695.8
45°	593.5	607.7	634.4	658.5	663.8
47.5°	556.1	572.1	600.6	624.6	633.5
50°	518.8	535.7	565.9	590.8	596.2
52.5°	481.4	499.2	531.2	557.9	560.6
55°	442.2	461.8	495.6	521.4	526.8
57.5°	406.6	423.5	460.0	486.7	493.0
60°	367.5	386.2	425.3	450.2	458.3
62.5°	330.1	349.7	390.6	415.5	422.7
65°	291.0	313.2	353.3	382.6	389.7
67.5°	257.2	278.5	321.2	349.7	356.8
70°	218.0	242.0	287.4	316.8	323.9
72.5°	184.2	209.1	254.5	283.0	293.6
75°	147.7	176.2	221.6	251.8	258.9
77.5°	112.1	145.0	191.3	214.4	214.4
80°	80.1	114.8	157.5	168.2	170.0
82.5°	52.5	86.3	116.6	115.7	115.7
85°	30.3	56.1	69.4	67.6	67.6
87.5°	11.6	23.1	24.9	24.9	24.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)