

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: P276316

Luminaire Tested: **24CZ2-30HE-S-UNV-L83050-W2A1-U-5000K**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P276316  
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-L83050-W2A1-U-5000K  
Description: CRUZE 2.0 2x4 TUNABLE WHITE LED TROFFER WITH SMOOTH LENS  
Light Source: (336) 80 CRI LEDS TUNED TO 5000K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 3235.0 lumens  
Efficiency: N/A  
Efficacy: 157.2 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

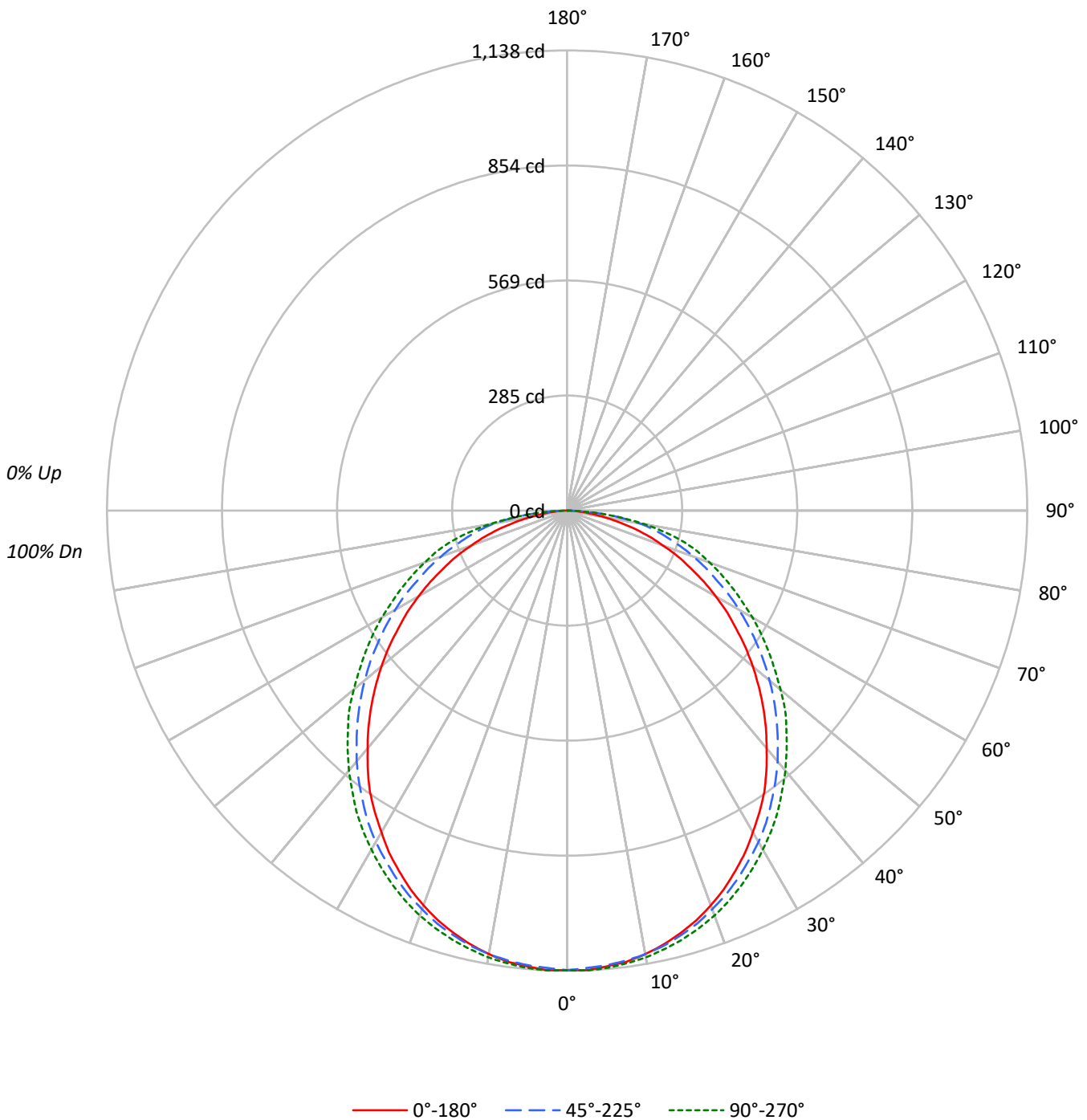
Input Watts (W): 20.584527  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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°	1529	1529	1529
5°	1528	1524	1534
10°	1522	1522	1533
15°	1507	1514	1530
20°	1488	1502	1526
25°	1460	1487	1516
30°	1427	1470	1504
35°	1396	1446	1492
40°	1348	1422	1475
45°	1304	1394	1459
50°	1254	1368	1441
55°	1198	1342	1427
60°	1142	1322	1424
65°	1070	1299	1433
70°	991	1306	1471
75°	887	1330	1554
80°	717	1409	1521
85°	539	1237	1206



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	107.6	3.3
10°-20°	307.4	9.5
20°-30°	462.1	14.3
30°-40°	550.5	17.0
40°-50°	563.4	17.4
50°-60°	507.2	15.7
60°-70°	398.3	12.3
70°-80°	258.5	8.0
80°-90°	80.0	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°	877.2	27.1
0°-40°	1427.6	44.1
0°-60°	2498.2	77.2
0°-90°	3235.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3235.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1136	1136	1136	1136	1136	
5°	1131	1133	1128	1134	1135	107
15°	1082	1085	1087	1096	1098	305
25°	983	992	1002	1018	1021	453
35°	850	860	881	902	908	530
45°	685	702	733	760	767	528
55°	511	533	572	602	608	458
65°	336	362	408	442	450	334
75°	171	204	256	291	299	181
85°	35	65	80	78	78	42
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1136.5	1136.5	1136.5	1136.5	<i>1136.5</i>
2.5°	<i>1137.5</i>	<i>1137.5</i>	<i>1132.4</i>	<i>1137.5</i>	<i>1138.5</i>
5°	1131.3	1133.4	1128.3	1134.4	<i>1135.4</i>
7.5°	1125.2	1125.2	1122.1	1128.3	<i>1129.3</i>
10°	1113.9	1114.9	1113.9	1121.1	<i>1122.1</i>
12.5°	1099.5	1101.5	1102.6	1109.8	<i>1110.8</i>
15°	1082.0	1085.1	1087.2	1096.4	<i>1098.5</i>
17.5°	1062.5	1065.6	1070.7	1081.0	<i>1083.0</i>
20°	1038.9	1043.0	1049.1	1062.5	<i>1065.6</i>
22.5°	1013.2	1017.3	1027.6	1039.9	<i>1045.0</i>
25°	983.4	991.6	1001.9	1018.3	<i>1021.4</i>
27.5°	953.6	960.8	974.1	991.6	<i>995.7</i>
30°	918.6	929.9	946.4	963.8	<i>968.0</i>
32.5°	884.7	896.0	915.6	934.0	<i>939.2</i>
35°	849.8	860.1	880.6	902.2	<i>908.4</i>
37.5°	809.7	823.1	845.7	867.3	<i>873.4</i>
40°	767.6	784.0	809.7	832.3	<i>839.5</i>
42.5°	727.5	745.0	770.7	795.3	<i>803.5</i>
45°	685.4	701.8	732.6	760.4	<i>766.6</i>
47.5°	642.2	660.7	693.6	721.3	<i>731.6</i>
50°	599.1	618.6	653.5	682.3	<i>688.5</i>
52.5°	555.9	576.5	613.5	644.3	<i>647.4</i>
55°	510.7	533.3	572.3	602.1	<i>608.3</i>
57.5°	469.6	489.1	531.2	562.1	<i>569.3</i>
60°	424.4	446.0	491.2	519.9	<i>529.2</i>
62.5°	381.2	403.8	451.1	479.9	<i>488.1</i>
65°	336.0	361.7	407.9	441.8	<i>450.1</i>
67.5°	297.0	321.6	370.9	403.8	<i>412.0</i>
70°	251.8	279.5	331.9	365.8	<i>374.0</i>
72.5°	212.7	241.5	293.9	326.8	<i>339.1</i>
75°	170.6	203.5	255.9	290.8	<i>299.0</i>
77.5°	129.5	167.5	220.9	247.6	<i>247.6</i>
80°	92.5	132.6	181.9	194.2	<i>196.3</i>
82.5°	60.6	99.7	134.6	133.6	<i>133.6</i>
85°	34.9	64.7	80.1	78.1	<i>78.1</i>
87.5°	13.4	26.7	28.8	28.8	<i>27.7</i>
90°	0.0	0.0	0.0	0.0	<i>0.0</i>

(END OF REPORT)