

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: P276204

Luminaire Tested: **24CZ2-45HE-UNV-L92765-W2A1-U-2700K**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P276204  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1805-783-5)  
Test Lab: INNOVATION CENTER(G3)  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: METALUX  
Catalog Number: 24CZ2-45HE-UNV-L92765-W2A1-U-2700K  
Description: CRUZE 2.0 2x4 TUNABLE WHITE LED TROFFER  
WITH RIBBED LENS  
Light Source: (336) 90 CRI LEDS TUNED TO 2700K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 3325.2 lumens  
Efficiency: N/A  
Efficacy: 106.1 lumens/watt  
Spacing Criteria (0/90/45): 1.21 / 1.27 / 1.37  
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')  
CIE Type: Direct

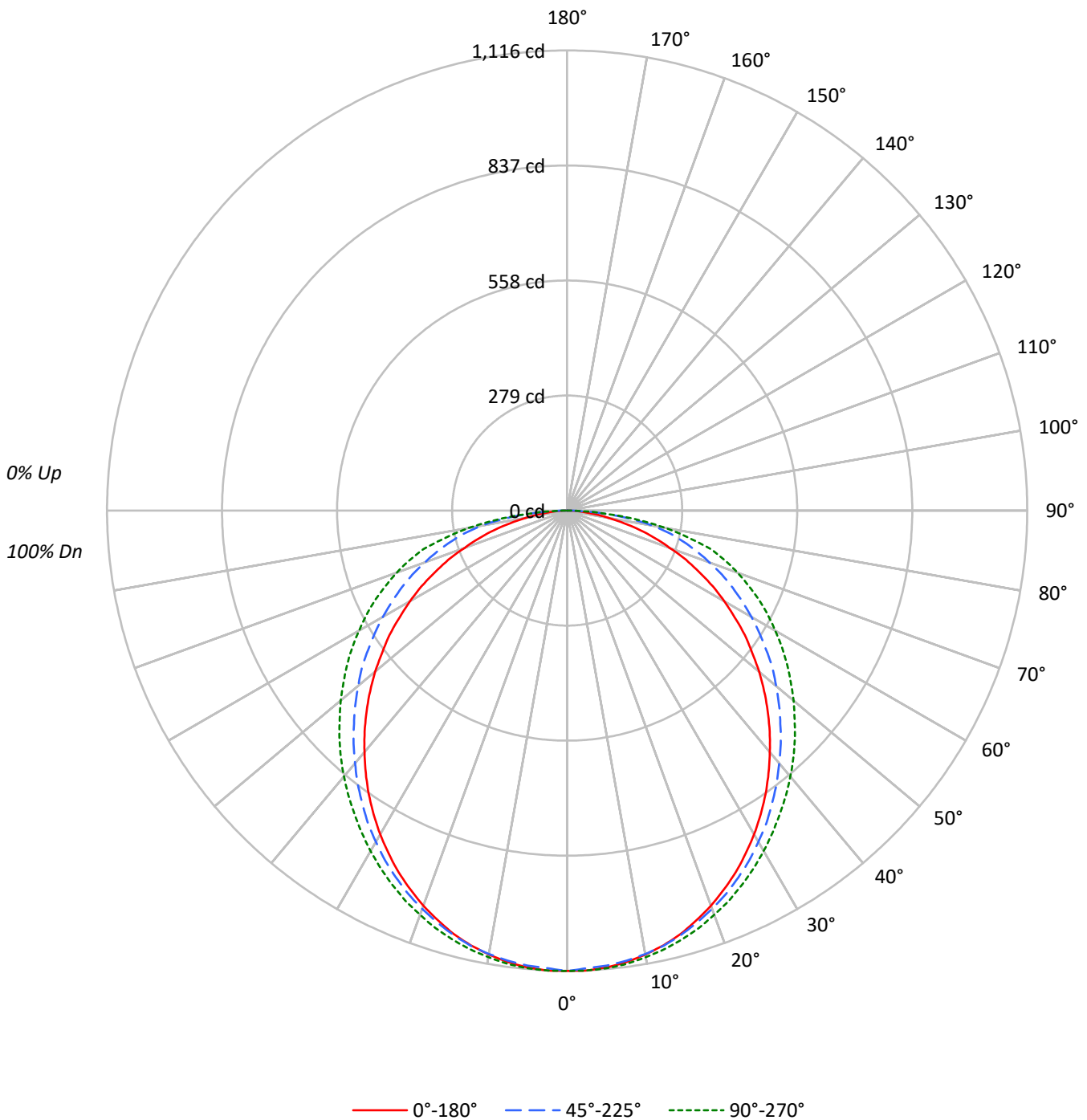
Input Watts (W): 31.341  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	98	94	105	100	96	92	96	93	89	92	89	87	89	86	84	82
2	98	89	82	76	95	87	80	75	83	78	73	80	75	71	77	73	70	67
3	89	78	69	62	86	76	68	62	73	66	61	70	64	60	68	63	58	56
4	81	69	59	52	79	67	59	52	65	57	51	62	56	51	60	55	50	48
5	74	61	52	45	72	60	51	45	58	50	44	56	49	44	54	48	43	41
6	69	55	46	39	67	54	45	39	52	44	39	50	44	38	49	43	38	36
7	64	50	41	35	62	49	40	34	47	40	34	46	39	34	45	38	34	32
8	59	45	37	31	58	45	36	31	43	36	30	42	35	30	41	35	30	28
9	55	42	33	28	54	41	33	28	40	33	27	39	32	27	38	32	27	25
10	52	38	30	25	51	38	30	25	37	30	25	36	29	25	35	29	25	23

**AVERAGE LUMINANCE (cd/sqm):**

	0°	45°	90°
0°	1502	1502	1502
5°	1502	1496	1505
10°	1493	1492	1503
15°	1481	1484	1500
20°	1460	1471	1494
25°	1437	1458	1488
30°	1409	1441	1481
35°	1378	1424	1476
40°	1343	1405	1479
45°	1309	1392	1487
50°	1273	1384	1501
55°	1234	1382	1528
60°	1186	1389	1568
65°	1124	1410	1636
70°	1043	1445	1729
75°	952	1517	1875
80°	783	1634	1874
85°	599	1508	1610



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	105.6	3.2
10°-20°	301.4	9.1
20°-30°	453.6	13.6
30°-40°	543.6	16.3
40°-50°	566.5	17.0
50°-60°	527.1	15.9
60°-70°	434.1	13.1
70°-80°	295.6	8.9
80°-90°	97.6	2.9
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°	860.7	25.9
0°-40°	1404.3	42.2
0°-60°	2497.8	75.1
0°-90°	3325.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3325.2	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1116	1116	1116	1116	1116	
5°	1112	1112	1108	1113	1114	106
15°	1063	1064	1065	1075	1076	300
25°	968	972	982	999	1002	445
35°	839	849	867	890	899	524
45°	688	702	731	768	781	531
55°	526	544	589	636	651	469
65°	353	383	443	495	514	350
75°	183	224	292	344	361	193
85°	39	76	98	104	104	48
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1116.4	1116.4	1116.4	1116.4	1116.4
2.5°	1116.4	1116.4	1110.9	1116.4	1116.4
5°	1112.0	1112.0	1107.5	1113.1	1114.2
7.5°	1104.2	1105.3	1100.9	1107.5	1108.7
10°	1093.1	1094.2	1092.0	1098.7	1099.8
12.5°	1079.8	1080.9	1080.9	1088.7	1089.8
15°	1063.2	1064.3	1065.4	1075.4	1076.5
17.5°	1042.1	1045.4	1047.6	1059.8	1062.0
20°	1019.9	1023.2	1027.6	1041.0	1043.2
22.5°	994.3	998.8	1006.6	1021.0	1024.3
25°	967.7	972.2	982.1	998.8	1002.1
27.5°	937.7	944.4	956.6	974.4	978.8
30°	906.7	913.3	927.8	946.6	953.3
32.5°	873.4	882.3	898.9	920.0	926.7
35°	839.0	849.0	866.7	890.0	898.9
37.5°	802.4	813.5	834.5	860.1	871.2
40°	764.6	777.9	800.1	830.1	842.3
42.5°	726.9	739.1	766.8	799.0	812.3
45°	688.1	702.5	731.3	768.0	781.3
47.5°	648.1	662.5	696.9	735.8	748.0
50°	608.1	622.6	661.4	702.5	716.9
52.5°	564.9	583.7	628.1	669.2	683.6
55°	526.0	543.8	589.3	635.9	651.4
57.5°	481.6	502.7	552.7	601.5	618.1
60°	440.6	462.8	516.0	566.0	582.6
62.5°	398.4	422.8	479.4	530.5	549.3
65°	352.9	382.9	442.8	495.0	513.8
67.5°	311.8	342.9	406.2	459.4	476.1
70°	265.2	303.0	367.3	420.6	439.5
72.5°	225.3	263.0	330.7	382.9	401.7
75°	183.1	224.2	291.9	344.0	360.7
77.5°	140.9	186.4	254.1	294.1	299.6
80°	101.0	148.7	210.9	234.2	241.9
82.5°	71.0	114.3	155.4	170.9	175.3
85°	38.8	75.5	97.7	104.3	104.3
87.5°	16.6	32.2	38.8	40.0	41.1
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)