

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: P277178

Luminaire Tested: **22CZ2-44HE-UNV-L83050-W2A1-U-3500K**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P277178  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1805-783-27)  
Test Lab: INNOVATION CENTER(G3)  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: METALUX  
Catalog Number: 22CZ2-44HE-UNV-L83050-W2A1-U-3500K  
Description: CRUZE 2.0 2x2 TUNABLE WHITE LED TROFFER  
WITH RIBBED LENS  
Light Source: (168) 80 CRI LEDS TUNED TO 3500K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 4118.0 lumens  
Efficiency: N/A  
Efficacy: 119.0 lumens/watt  
Spacing Criteria (0/90/45): 1.19 / 1.27 / 1.36  
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')  
CIE Type: Direct

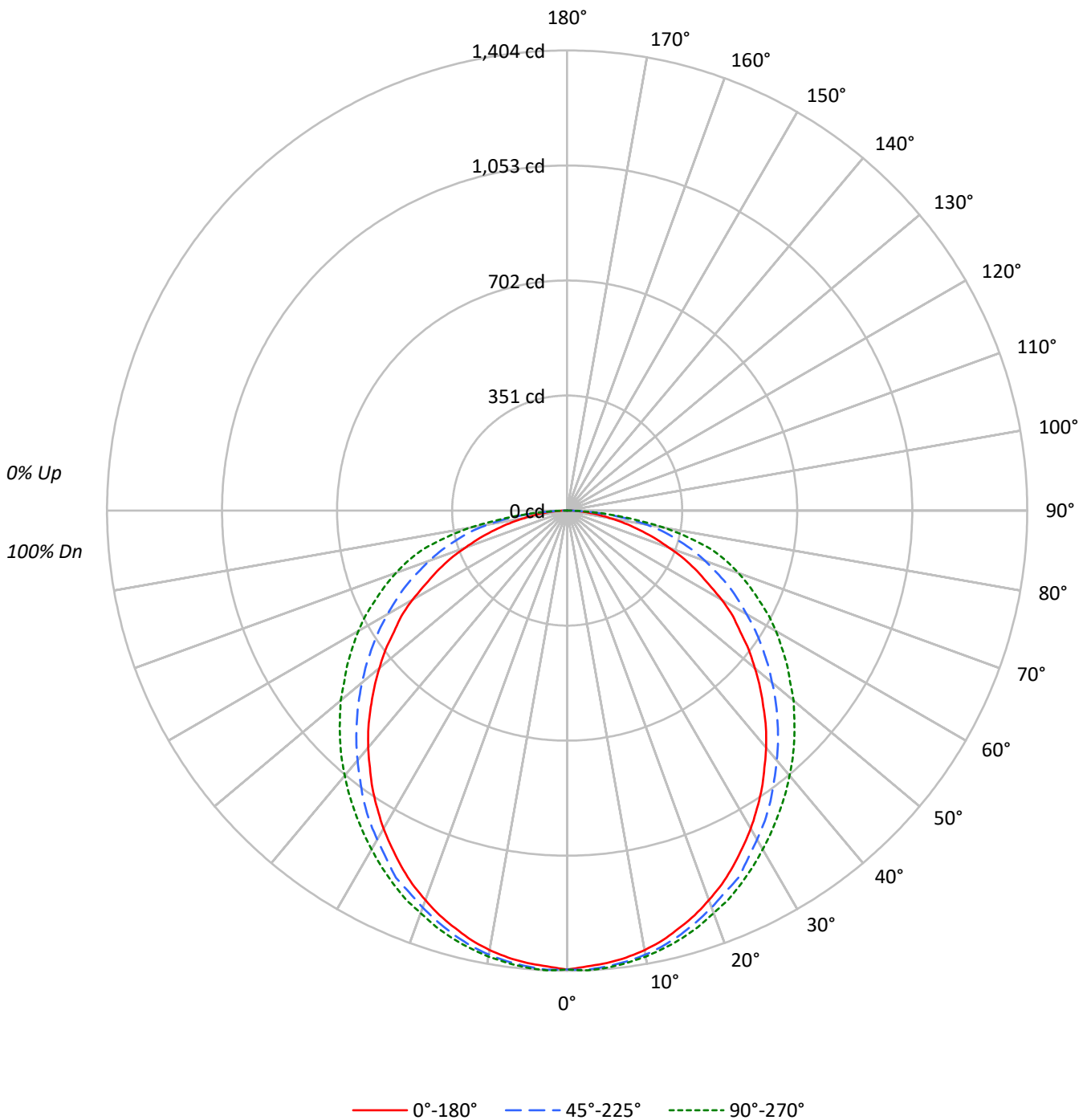
Input Watts (W): 34.596  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	101	96	93	96	93	90	92	90	87	89	86	84	82
2	98	89	82	76	95	87	81	75	84	78	73	80	76	71	77	73	70	68
3	89	78	69	63	86	76	68	62	73	66	61	70	65	60	68	63	59	56
4	81	69	60	53	79	67	59	52	65	57	52	63	56	51	60	55	50	48
5	75	61	52	45	72	60	52	45	58	50	44	56	49	44	54	48	44	41
6	69	55	46	39	67	54	46	39	52	45	39	51	44	39	49	43	38	36
7	64	50	41	35	62	49	41	35	48	40	34	46	39	34	45	39	34	32
8	59	46	37	31	58	45	37	31	44	36	31	42	35	30	41	35	30	28
9	56	42	34	28	54	41	33	28	40	33	28	39	32	27	38	32	27	25
10	52	39	31	25	51	38	30	25	37	30	25	36	30	25	35	29	25	23

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

	0°	45°	90°
0°	3768	3768	3768
5°	3744	3771	3782
10°	3721	3760	3776
15°	3675	3731	3765
20°	3621	3690	3743
25°	3556	3670	3730
30°	3482	3602	3709
35°	3402	3555	3701
40°	3317	3495	3708
45°	3223	3455	3732
50°	3130	3419	3775
55°	3023	3403	3841
60°	2934	3402	3959
65°	2787	3458	4103
70°	2599	3523	4368
75°	2381	3645	4719
80°	2072	3800	4647
85°	1815	3378	3693



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	132.4	3.2
10°-20°	377.2	9.2
20°-30°	566.2	13.7
30°-40°	676.6	16.4
40°-50°	703.5	17.1
50°-60°	652.1	15.8
60°-70°	534.9	13.0
70°-80°	361.6	8.8
80°-90°	113.6	2.8
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°	1075.8	26.1
0°-40°	1752.4	42.6
0°-60°	3108.0	75.5
0°-90°	4118.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4118.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1400	1400	1400	1400	1400	
5°	1386	1388	1396	1398	1400	132
15°	1319	1325	1339	1348	1352	372
25°	1198	1208	1236	1250	1256	552
35°	1036	1050	1082	1114	1127	647
45°	847	863	908	960	981	654
55°	644	665	725	790	819	579
65°	438	462	543	614	644	433
75°	229	268	351	422	454	243
85°	59	81	109	122	120	67
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1400.2	1400.2	1400.2	1400.2	1400.2
2.5°	1392.1	1396.1	1402.2	1404.2	1404.2
5°	1386.0	1388.0	1396.1	1398.2	1400.2
7.5°	1375.9	1379.9	1388.0	1390.1	1392.1
10°	1361.7	1365.7	1375.9	1379.9	1382.0
12.5°	1343.5	1347.5	1359.7	1365.7	1367.8
15°	1319.1	1325.2	1339.4	1347.5	1351.6
17.5°	1294.8	1300.9	1315.1	1327.2	1331.3
20°	1264.4	1278.6	1288.7	1305.0	1307.0
22.5°	1234.0	1242.1	1260.4	1276.6	1284.7
25°	1197.6	1207.7	1236.1	1250.2	1256.3
27.5°	1159.1	1173.2	1195.5	1217.8	1225.9
30°	1120.6	1130.7	1159.1	1185.4	1193.5
32.5°	1078.0	1092.2	1122.6	1148.9	1161.1
35°	1035.5	1049.6	1082.1	1114.5	1126.6
37.5°	988.9	1005.1	1037.5	1076.0	1092.2
40°	944.3	956.4	994.9	1041.5	1055.7
42.5°	897.7	911.8	952.4	1003.0	1019.2
45°	847.0	863.2	907.8	960.5	980.7
47.5°	798.4	814.6	863.2	915.9	940.2
50°	747.7	768.0	816.6	877.4	901.7
52.5°	699.1	717.3	772.0	834.8	857.1
55°	644.4	664.6	725.4	790.3	818.6
57.5°	599.8	614.0	680.8	747.7	776.1
60°	545.1	563.3	632.2	703.1	735.6
62.5°	486.3	516.7	587.6	660.6	693.0
65°	437.7	462.0	543.1	614.0	644.4
67.5°	387.0	413.4	492.4	567.4	601.8
70°	330.3	364.7	447.8	522.8	555.2
72.5°	279.6	316.1	401.2	474.2	508.6
75°	229.0	267.5	350.6	421.5	453.9
77.5°	180.3	222.9	303.9	358.7	378.9
80°	133.7	174.3	245.2	283.7	299.9
82.5°	93.2	127.7	180.3	200.6	204.7
85°	58.8	81.1	109.4	121.6	119.6
87.5°	26.3	32.4	40.5	44.6	42.6
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)