

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: P277209

Luminaire Tested: **22CZ2-44HE-UNV-L93050-W2A1-U-4000K**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P277209  
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-L93050-W2A1-U-4000K  
Description: CRUZE 2.0 2x2 TUNABLE WHITE LED TROFFER  
WITH RIBBED LENS  
Light Source: (168) 90 CRI LEDS TUNED TO 4000K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 3780.0 lumens  
Efficiency: N/A  
Efficacy: 106.5 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

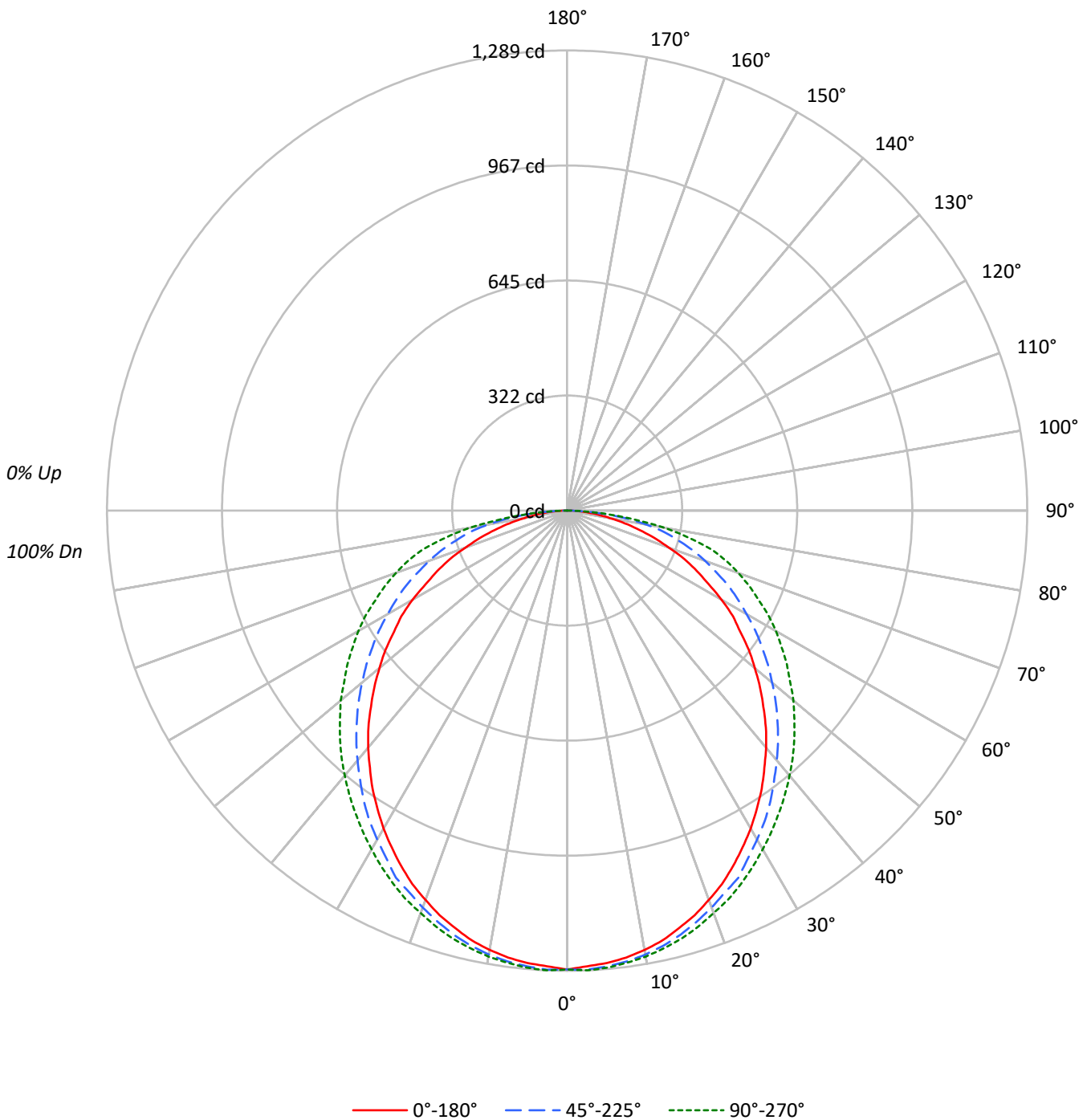
Input Watts (W): 35.495496  
Input Voltage (V): 120  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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°	3459	3459	3459
5°	3437	3462	3472
10°	3415	3451	3466
15°	3373	3425	3456
20°	3324	3388	3436
25°	3264	3369	3424
30°	3196	3306	3404
35°	3122	3263	3397
40°	3045	3208	3404
45°	2959	3171	3426
50°	2873	3138	3465
55°	2775	3124	3525
60°	2693	3123	3634
65°	2558	3174	3766
70°	2386	3234	4009
75°	2185	3346	4331
80°	1903	3488	4266
85°	1664	3100	3387



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	121.6	3.2
10°-20°	346.2	9.2
20°-30°	519.7	13.7
30°-40°	621.0	16.4
40°-50°	645.8	17.1
50°-60°	598.5	15.8
60°-70°	491.0	13.0
70°-80°	331.9	8.8
80°-90°	104.3	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°	987.5	26.1
0°-40°	1608.5	42.6
0°-60°	2852.9	75.5
0°-90°	3780.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3780.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1285	1285	1285	1285	1285	
5°	1272	1274	1282	1283	1285	121
15°	1211	1216	1230	1237	1241	342
25°	1099	1109	1135	1148	1153	506
35°	950	964	993	1023	1034	594
45°	778	792	833	882	900	600
55°	592	610	666	725	751	532
65°	402	424	498	564	592	397
75°	210	246	322	387	417	223
85°	54	74	100	112	110	61
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1285.3	1285.3	1285.3	1285.3	1285.3
2.5°	1277.8	1281.5	1287.1	1289.0	1289.0
5°	1272.2	1274.1	1281.5	1283.4	1285.3
7.5°	1262.9	1266.7	1274.1	1276.0	1277.8
10°	1249.9	1253.6	1262.9	1266.7	1268.5
12.5°	1233.2	1236.9	1248.1	1253.6	1255.5
15°	1210.9	1216.4	1229.5	1236.9	1240.6
17.5°	1188.5	1194.1	1207.1	1218.3	1222.0
20°	1160.6	1173.7	1183.0	1197.8	1199.7
22.5°	1132.7	1140.2	1156.9	1171.8	1179.2
25°	1099.3	1108.6	1134.6	1147.6	1153.2
27.5°	1063.9	1076.9	1097.4	1117.9	1125.3
30°	1028.6	1037.9	1063.9	1088.1	1095.5
32.5°	989.5	1002.5	1030.4	1054.6	1065.8
35°	950.5	963.5	993.2	1023.0	1034.2
37.5°	907.7	922.6	952.3	987.7	1002.5
40°	866.8	877.9	913.3	956.0	969.1
42.5°	824.0	837.0	874.2	920.7	935.6
45°	777.5	792.4	833.3	881.6	900.2
47.5°	732.8	747.7	792.4	840.7	863.0
50°	686.3	704.9	749.6	805.4	827.7
52.5°	641.7	658.4	708.7	766.3	786.8
55°	591.5	610.1	665.9	725.4	751.4
57.5°	550.6	563.6	625.0	686.3	712.4
60°	500.3	517.1	580.3	645.4	675.2
62.5°	446.4	474.3	539.4	606.4	636.1
65°	401.8	424.1	498.5	563.6	591.5
67.5°	355.3	379.4	452.0	520.8	552.4
70°	303.2	334.8	411.1	479.9	509.6
72.5°	256.7	290.2	368.3	435.2	466.9
75°	210.2	245.5	321.8	386.9	416.6
77.5°	165.5	204.6	279.0	329.2	347.8
80°	122.8	160.0	225.1	260.4	275.3
82.5°	85.6	117.2	165.5	184.1	187.9
85°	53.9	74.4	100.4	111.6	109.7
87.5°	24.2	29.8	37.2	40.9	39.1
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)