

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: P277419

Luminaire Tested: **22CZ2-39HE-S-UNV-L82765-W2A1-U-4000K**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P277419
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1805-783-23)
Test Lab: INNOVATION CENTER(G3)
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 22CZ2-39HE-S-UNV-L82765-W2A1-U-4000K
Description: CRUZE 2.0 2x2 TUNABLE WHITE LED TROFFER
WITH SMOOTH LENS
Light Source: (168) 80 CRI LEDS TUNED TO 4000K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3864.0 lumens
Efficiency: N/A
Efficacy: 126.7 lumens/watt
Spacing Criteria (0/90/45): 1.18 / 1.26 / 1.34
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

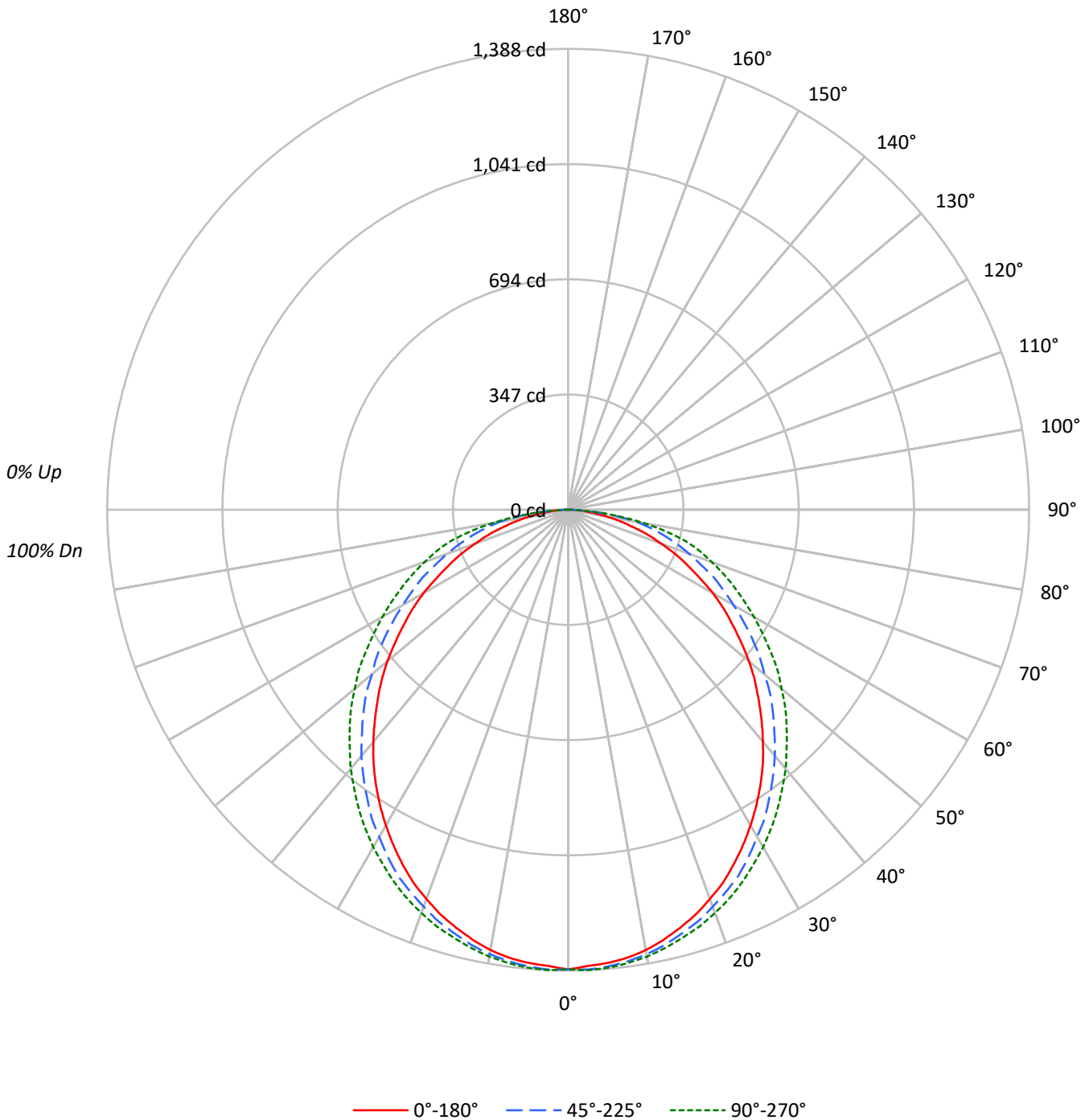
Input Watts (W): 30.504
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	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					100			
1	108	103	99	95	106	101	97	94	97	94	91	93	90	88	89	87	85	83					83			
2	98	90	83	77	96	88	82	76	84	79	74	81	77	73	78	74	71	69					69			
3	90	79	71	64	87	77	70	63	74	68	62	72	66	61	69	64	60	58					58			
4	82	70	61	54	80	69	60	54	66	59	53	64	57	52	61	56	52	49					49			
5	75	62	53	47	73	61	53	46	59	52	46	57	51	45	55	50	45	43					43			
6	70	56	47	41	68	55	47	41	53	46	40	52	45	40	50	44	39	37					37			
7	65	51	42	36	63	50	42	36	49	41	36	47	40	35	46	40	35	33					33			
8	60	47	38	32	59	46	38	32	45	37	32	43	37	32	42	36	31	30					30			
9	56	43	35	29	55	42	34	29	41	34	29	40	33	29	39	33	28	27					27			
10	53	40	32	26	51	39	31	26	38	31	26	37	31	26	36	30	26	24					24			

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	3726	3726	3726
5°	3701	3730	3740
10°	3680	3715	3734
15°	3631	3682	3717
20°	3573	3645	3702
25°	3501	3608	3678
30°	3411	3535	3647
35°	3317	3471	3613
40°	3204	3401	3578
45°	3087	3321	3540
50°	2974	3230	3509
55°	2834	3172	3485
60°	2707	3095	3474
65°	2525	3077	3513
70°	2327	3050	3617
75°	2099	3093	3805
80°	1816	3185	3577
85°	1504	2671	2671



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	130.9	3.4
10°-20°	372.6	9.6
20°-30°	557.5	14.4
30°-40°	660.3	17.1
40°-50°	672.9	17.4
50°-60°	603.1	15.6
60°-70°	472.2	12.2
70°-80°	304.5	7.9
80°-90°	89.9	2.3
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°	1061.1	27.5
0°-40°	1721.4	44.5
0°-60°	2997.4	77.6
0°-90°	3864.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3864.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1385	1385	1385	1385	1385	
5°	1370	1374	1381	1383	1385	130
15°	1304	1311	1322	1332	1334	367
25°	1179	1190	1215	1231	1239	543
35°	1010	1022	1056	1089	1100	631
45°	811	829	873	918	930	627
55°	604	624	676	723	743	542
65°	397	420	483	530	552	394
75°	202	233	298	348	366	217
85°	49	67	86	86	86	57
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1384.6	1384.6	1384.6	1384.6	1384.6
2.5°	1375.6	1379.2	1386.4	1388.2	1388.2
5°	1370.2	1373.8	1381.0	1382.8	1384.6
7.5°	1361.2	1363.0	1372.0	1375.6	1377.4
10°	1346.7	1350.3	1359.4	1364.8	1366.6
12.5°	1326.9	1332.3	1343.1	1350.3	1352.1
15°	1303.5	1310.7	1321.5	1332.3	1334.1
17.5°	1278.2	1285.4	1299.9	1312.5	1316.1
20°	1247.6	1256.6	1272.8	1287.2	1292.6
22.5°	1216.9	1224.1	1244.0	1262.0	1267.4
25°	1179.1	1189.9	1215.1	1231.3	1238.6
27.5°	1139.4	1152.0	1177.3	1198.9	1206.1
30°	1097.9	1110.6	1137.6	1164.6	1173.7
32.5°	1054.7	1069.1	1101.5	1128.6	1137.6
35°	1009.6	1022.2	1056.5	1088.9	1099.7
37.5°	962.7	973.5	1013.2	1047.5	1058.3
40°	912.2	926.7	968.1	1007.8	1018.6
42.5°	861.8	878.0	919.5	962.7	973.5
45°	811.3	829.3	872.6	917.7	930.3
47.5°	762.6	777.0	825.7	869.0	887.0
50°	710.3	724.7	771.6	820.3	838.3
52.5°	656.2	676.1	726.6	773.4	795.1
55°	604.0	623.8	676.1	722.9	742.8
57.5°	555.3	571.5	625.6	674.3	694.1
60°	503.0	517.4	575.1	627.4	645.4
62.5°	447.1	468.7	528.2	576.9	598.5
65°	396.6	420.1	483.2	530.0	551.7
67.5°	349.8	371.4	432.7	483.2	506.6
70°	295.7	324.5	387.6	438.1	459.7
72.5°	252.4	277.6	342.5	393.0	416.5
75°	201.9	232.6	297.5	348.0	366.0
77.5°	160.5	191.1	252.4	292.1	301.1
80°	117.2	147.8	205.5	225.4	230.8
82.5°	79.3	108.2	147.8	153.2	155.0
85°	48.7	66.7	86.5	86.5	86.5
87.5°	23.4	27.0	30.6	28.8	28.8
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)