

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: P277420

Luminaire Tested: **22CZ2-39HE-S-UNV-L82765-W2A1-U-4500K**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P277420
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-4500K
Description: CRUZE 2.0 2x2 TUNABLE WHITE LED TROFFER
WITH SMOOTH LENS
Light Source: (168) 80 CRI LEDS TUNED TO 4500K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3932.0 lumens
Efficiency: N/A
Efficacy: 128.1 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

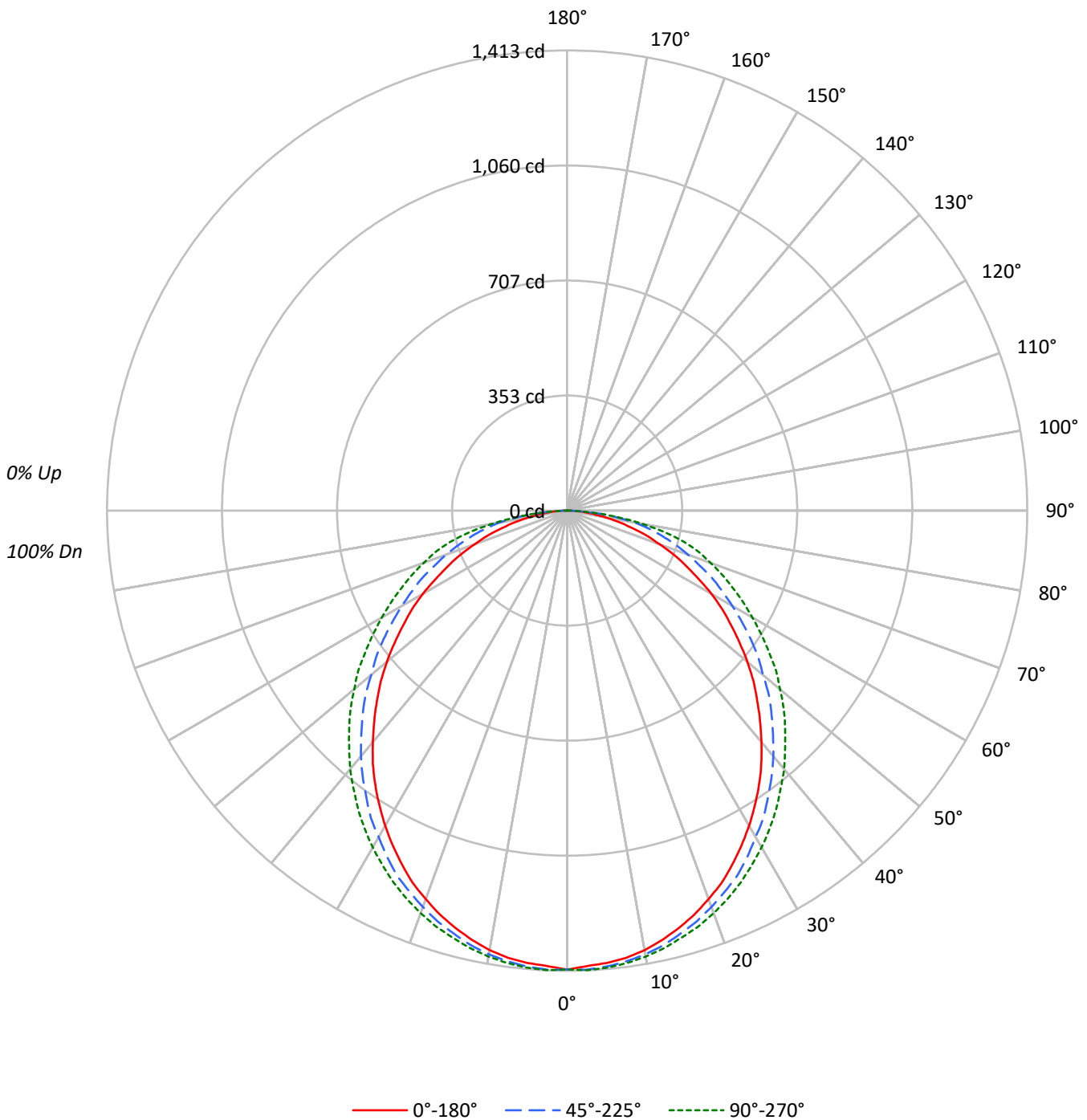
Input Watts (W): 30.69
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	3792	3792	3792
5°	3766	3796	3806
10°	3745	3780	3800
15°	3695	3746	3782
20°	3635	3709	3767
25°	3562	3671	3742
30°	3472	3597	3711
35°	3375	3532	3676
40°	3261	3461	3641
45°	3142	3379	3602
50°	3026	3287	3571
55°	2883	3228	3546
60°	2754	3150	3535
65°	2570	3131	3575
70°	2367	3103	3681
75°	2137	3147	3872
80°	1847	3240	3639
85°	1528	2720	2720



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	133.2	3.4
10°-20°	379.2	9.6
20°-30°	567.4	14.4
30°-40°	671.9	17.1
40°-50°	684.7	17.4
50°-60°	613.7	15.6
60°-70°	480.5	12.2
70°-80°	309.8	7.9
80°-90°	91.5	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°	1079.8	27.5
0°-40°	1751.7	44.5
0°-60°	3050.1	77.6
0°-90°	3932.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3932.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1409	1409	1409	1409	1409	
5°	1394	1398	1405	1407	1409	132
15°	1326	1334	1345	1356	1358	374
25°	1200	1211	1236	1253	1260	552
35°	1027	1040	1075	1108	1119	642
45°	826	844	888	934	947	638
55°	615	635	688	736	756	551
65°	404	428	492	539	561	401
75°	206	237	303	354	372	220
85°	50	68	88	88	88	58
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1409.0	1409.0	1409.0	1409.0	1409.0
2.5°	1399.8	1403.5	1410.8	1412.6	1412.6
5°	1394.3	1398.0	1405.3	1407.1	1409.0
7.5°	1385.1	1386.9	1396.1	1399.8	1401.6
10°	1370.4	1374.1	1383.3	1388.8	1390.6
12.5°	1350.3	1355.8	1366.8	1374.1	1375.9
15°	1326.4	1333.7	1344.7	1355.8	1357.6
17.5°	1300.7	1308.1	1322.7	1335.6	1339.2
20°	1269.5	1278.7	1295.2	1309.9	1315.4
22.5°	1238.3	1245.7	1265.9	1284.2	1289.7
25°	1199.8	1210.8	1236.5	1253.0	1260.4
27.5°	1159.5	1172.3	1198.0	1220.0	1227.3
30°	1117.3	1130.1	1157.6	1185.1	1194.3
32.5°	1073.2	1087.9	1120.9	1148.4	1157.6
35°	1027.4	1040.2	1075.1	1108.1	1119.1
37.5°	979.7	990.7	1031.0	1065.9	1076.9
40°	928.3	943.0	985.2	1025.5	1036.5
42.5°	876.9	893.4	935.6	979.7	990.7
45°	825.6	843.9	887.9	933.8	946.6
47.5°	776.0	790.7	840.2	884.3	902.6
50°	722.8	737.5	785.2	834.7	853.1
52.5°	667.8	688.0	739.3	787.0	809.1
55°	614.6	634.8	688.0	735.7	755.8
57.5°	565.1	581.6	636.6	686.1	706.3
60°	511.8	526.5	585.2	638.4	656.8
62.5°	455.0	477.0	537.5	587.1	609.1
65°	403.6	427.5	491.7	539.4	561.4
67.5°	355.9	377.9	440.3	491.7	515.5
70°	300.9	330.2	394.4	445.8	467.8
72.5°	256.8	282.5	348.6	399.9	423.8
75°	205.5	236.7	302.7	354.1	372.4
77.5°	163.3	194.5	256.8	297.2	306.4
80°	119.2	150.4	209.1	229.3	234.8
82.5°	80.7	110.1	150.4	155.9	157.8
85°	49.5	67.9	88.1	88.1	88.1
87.5°	23.8	27.5	31.2	29.4	29.4
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)