

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: P277342

Luminaire Tested: **22CZ2-39HE-S-UNV-L83050-W2A1-U-4000K**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P277342
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-L83050-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: 4064.0 lumens
Efficiency: N/A
Efficacy: 132.0 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

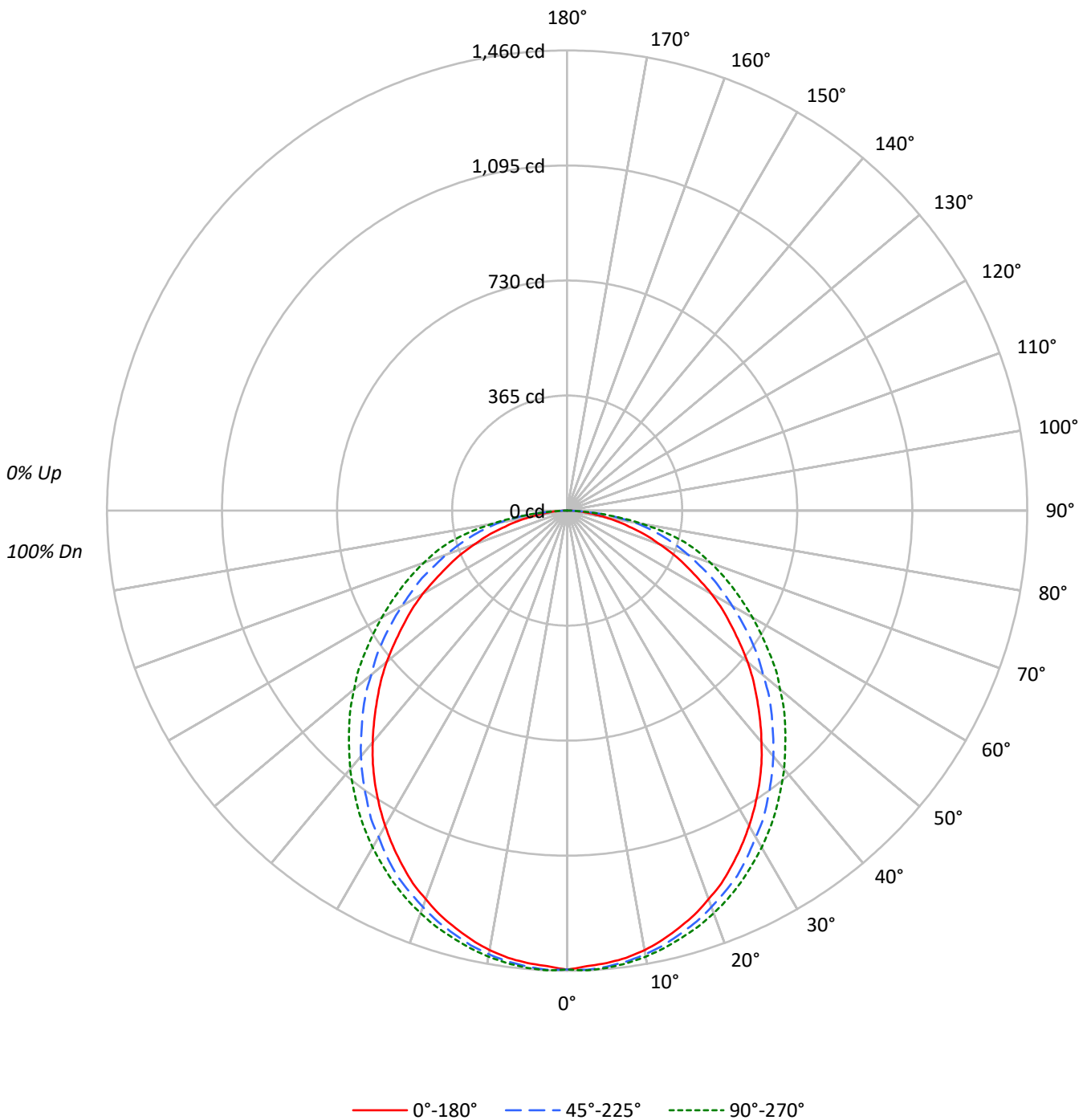
Input Watts (W): 30.783
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	3919	3919	3919
5°	3893	3924	3934
10°	3870	3907	3927
15°	3819	3872	3909
20°	3757	3834	3893
25°	3682	3795	3868
30°	3588	3718	3836
35°	3488	3650	3800
40°	3371	3577	3763
45°	3247	3492	3723
50°	3128	3398	3691
55°	2980	3336	3665
60°	2847	3256	3653
65°	2656	3236	3694
70°	2447	3208	3804
75°	2208	3253	4002
80°	1911	3350	3761
85°	1581	2810	2810



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	137.7	3.4
10°-20°	391.9	9.6
20°-30°	586.4	14.4
30°-40°	694.5	17.1
40°-50°	707.7	17.4
50°-60°	634.3	15.6
60°-70°	496.6	12.2
70°-80°	320.3	7.9
80°-90°	94.6	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°	1116.0	27.5
0°-40°	1810.5	44.5
0°-60°	3152.6	77.6
0°-90°	4064.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4064.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1456	1456	1456	1456	1456	
5°	1441	1445	1452	1454	1456	137
15°	1371	1378	1390	1401	1403	387
25°	1240	1252	1278	1295	1303	571
35°	1062	1075	1111	1145	1157	664
45°	853	872	918	965	978	659
55°	635	656	711	760	781	570
65°	417	442	508	558	580	414
75°	212	245	313	366	385	228
85°	51	70	91	91	91	60
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1456.3	1456.3	1456.3	1456.3	1456.3
2.5°	1446.8	1450.6	1458.2	1460.1	1460.1
5°	1441.1	1444.9	1452.5	1454.4	1456.3
7.5°	1431.6	1433.5	1443.0	1446.8	1448.7
10°	1416.4	1420.2	1429.7	1435.4	1437.3
12.5°	1395.6	1401.3	1412.6	1420.2	1422.1
15°	1370.9	1378.5	1389.9	1401.3	1403.2
17.5°	1344.4	1352.0	1367.1	1380.4	1384.2
20°	1312.1	1321.6	1338.7	1353.9	1359.6
22.5°	1279.9	1287.5	1308.4	1327.3	1333.0
25°	1240.1	1251.5	1278.0	1295.1	1302.7
27.5°	1198.4	1211.7	1238.2	1261.0	1268.5
30°	1154.8	1168.0	1196.5	1224.9	1234.4
32.5°	1109.3	1124.4	1158.6	1187.0	1196.5
35°	1061.9	1075.1	1111.2	1145.3	1156.7
37.5°	1012.6	1023.9	1065.6	1101.7	1113.1
40°	959.5	974.6	1018.2	1060.0	1071.3
42.5°	906.4	923.4	967.0	1012.6	1023.9
45°	853.3	872.2	917.7	965.2	978.4
47.5°	802.1	817.2	868.4	914.0	932.9
50°	747.1	762.3	811.6	862.8	881.7
52.5°	690.2	711.1	764.2	813.5	836.2
55°	635.2	656.1	711.1	760.4	781.2
57.5°	584.0	601.1	658.0	709.2	730.0
60°	529.0	544.2	604.9	659.9	678.8
62.5°	470.2	493.0	555.6	606.8	629.5
65°	417.2	441.8	508.2	557.5	580.2
67.5°	367.9	390.6	455.1	508.2	532.8
70°	311.0	341.3	407.7	460.8	483.5
72.5°	265.5	292.0	360.3	413.4	438.0
75°	212.4	244.6	312.9	366.0	384.9
77.5°	168.8	201.0	265.5	307.2	316.7
80°	123.3	155.5	216.2	237.0	242.7
82.5°	83.4	113.8	155.5	161.2	163.1
85°	51.2	70.2	91.0	91.0	91.0
87.5°	24.7	28.4	32.2	30.3	30.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)