

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: P277422

Luminaire Tested: **22CZ2-39HE-S-UNV-L82765-W2A1-U-5500K**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P277422
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-5500K
Description: CRUZE 2.0 2x2 TUNABLE WHITE LED TROFFER WITH SMOOTH LENS
Light Source: (168) 80 CRI LEDS TUNED TO 5500K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4025.0 lumens
Efficiency: N/A
Efficacy: 130.0 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

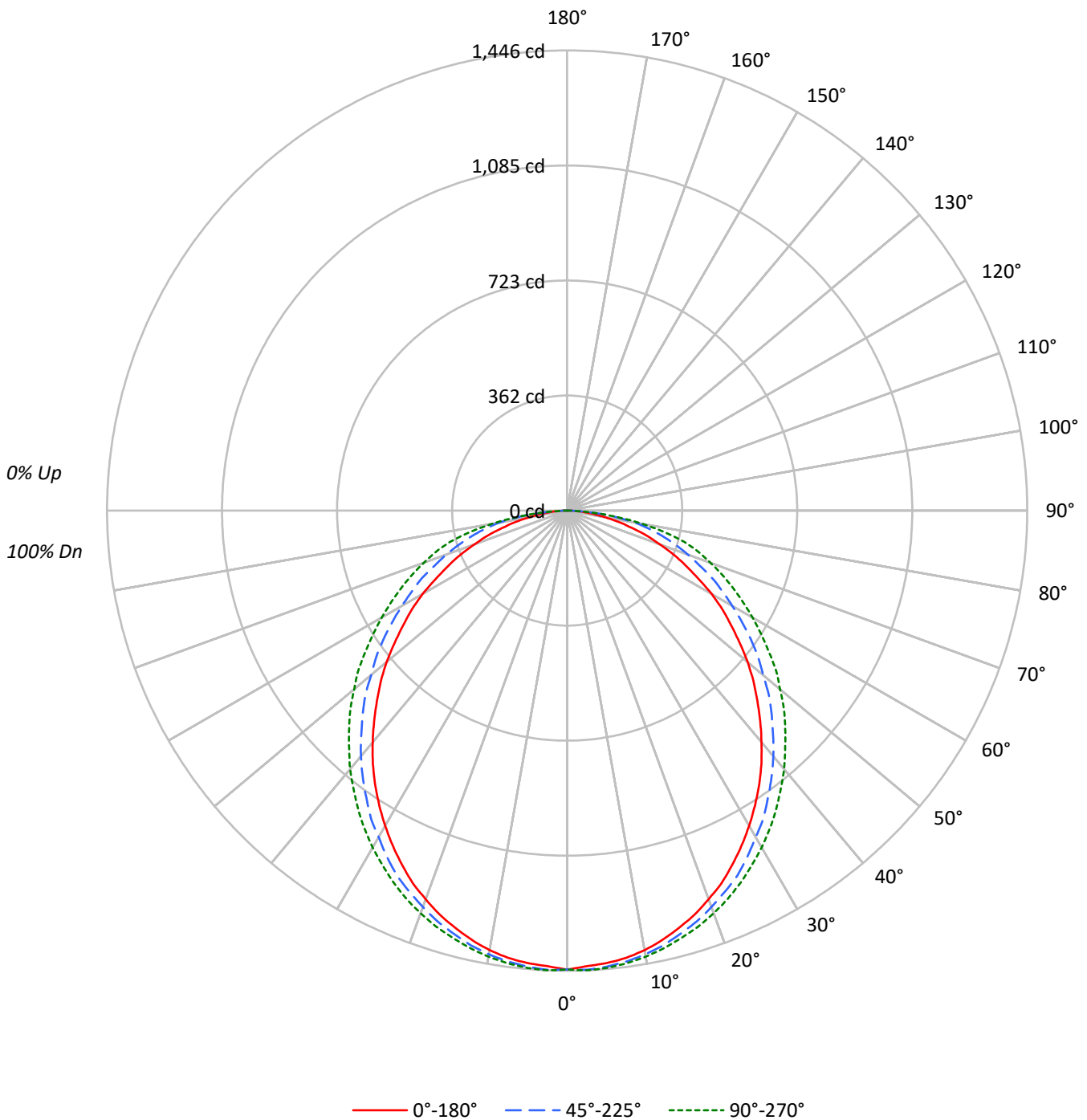
Input Watts (W): 30.969
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	3881	3881	3881
5°	3856	3886	3896
10°	3833	3869	3890
15°	3783	3835	3872
20°	3722	3797	3856
25°	3647	3758	3831
30°	3554	3682	3799
35°	3455	3615	3763
40°	3338	3543	3727
45°	3216	3459	3688
50°	3098	3365	3656
55°	2951	3304	3630
60°	2820	3224	3618
65°	2631	3205	3659
70°	2423	3177	3768
75°	2187	3222	3963
80°	1892	3318	3725
85°	1565	2782	2782



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	136.4	3.4
10°-20°	388.2	9.6
20°-30°	580.8	14.4
30°-40°	687.8	17.1
40°-50°	700.9	17.4
50°-60°	628.2	15.6
60°-70°	491.9	12.2
70°-80°	317.2	7.9
80°-90°	93.7	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°	1105.3	27.5
0°-40°	1793.1	44.5
0°-60°	3122.3	77.6
0°-90°	4025.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4025.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1442	1442	1442	1442	1442	
5°	1427	1431	1438	1440	1442	136
15°	1358	1365	1377	1388	1390	383
25°	1228	1240	1266	1283	1290	565
35°	1052	1065	1100	1134	1146	657
45°	845	864	909	956	969	653
55°	629	650	704	753	774	564
65°	413	438	503	552	575	410
75°	210	242	310	362	381	225
85°	51	70	90	90	90	60
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1442.3	1442.3	1442.3	1442.3	1442.3
2.5°	1432.9	1436.6	1444.2	1446.0	1446.0
5°	1427.3	1431.0	1438.5	1440.4	1442.3
7.5°	1417.9	1419.7	1429.1	1432.9	1434.8
10°	1402.8	1406.6	1416.0	1421.6	1423.5
12.5°	1382.2	1387.8	1399.1	1406.6	1408.5
15°	1357.8	1365.3	1376.6	1387.8	1389.7
17.5°	1331.5	1339.0	1354.0	1367.2	1370.9
20°	1299.6	1308.9	1325.8	1340.9	1346.5
22.5°	1267.6	1275.1	1295.8	1314.6	1320.2
25°	1228.2	1239.5	1265.8	1282.7	1290.2
27.5°	1186.9	1200.0	1226.3	1248.9	1256.4
30°	1143.7	1156.8	1185.0	1213.2	1222.6
32.5°	1098.6	1113.6	1147.4	1175.6	1185.0
35°	1051.7	1064.8	1100.5	1134.3	1145.6
37.5°	1002.8	1014.1	1055.4	1091.1	1102.4
40°	950.3	965.3	1008.5	1049.8	1061.1
42.5°	897.7	914.6	957.8	1002.8	1014.1
45°	845.1	863.9	908.9	955.9	969.0
47.5°	794.4	809.4	860.1	905.2	924.0
50°	739.9	754.9	803.8	854.5	873.3
52.5°	683.6	704.2	756.8	805.7	828.2
55°	629.1	649.8	704.2	753.1	773.7
57.5°	578.4	595.3	651.7	702.4	723.0
60°	524.0	539.0	599.1	653.5	672.3
62.5°	465.7	488.3	550.2	601.0	623.5
65°	413.2	437.6	503.3	552.1	574.7
67.5°	364.3	386.9	450.7	503.3	527.7
70°	308.0	338.0	403.8	456.3	478.9
72.5°	262.9	289.2	356.8	409.4	433.8
75°	210.3	242.3	309.9	362.4	381.2
77.5°	167.1	199.1	262.9	304.2	313.6
80°	122.1	154.0	214.1	234.7	240.4
82.5°	82.6	112.7	154.0	159.6	161.5
85°	50.7	69.5	90.1	90.1	90.1
87.5°	24.4	28.2	31.9	30.0	30.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)