

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: P277372

Luminaire Tested: **22CZ2-39HE-S-UNV-L93050-W2A1-U-4000K**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P277372
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-L93050-W2A1-U-4000K
Description: CRUZE 2.0 2x2 TUNABLE WHITE LED TROFFER
WITH SMOOTH LENS
Light Source: (168) 90 CRI LEDS TUNED TO 4000K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3553.0 lumens
Efficiency: N/A
Efficacy: 114.9 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

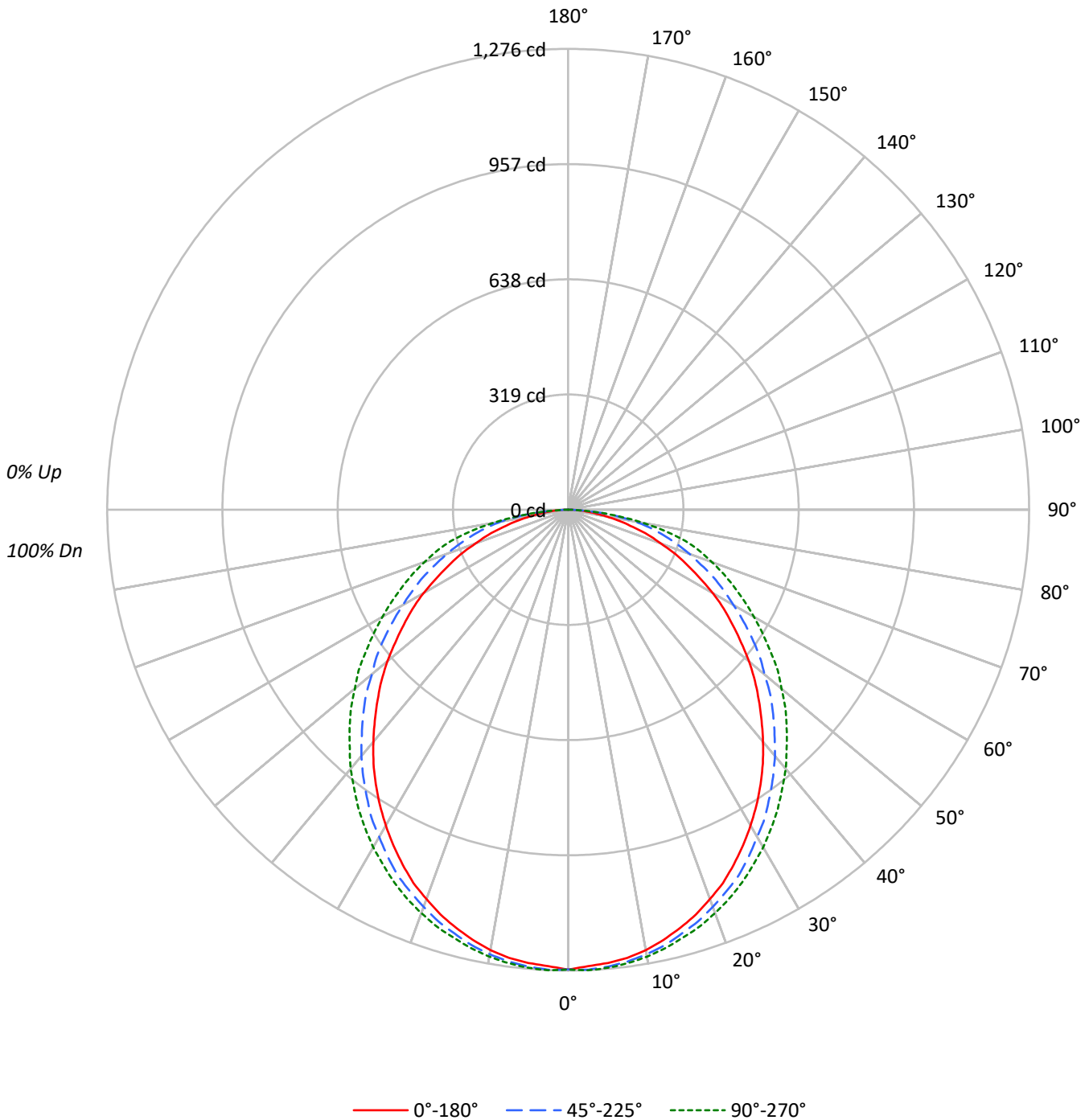
Input Watts (W): 30.915432
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	3426	3426	3426
5°	3403	3430	3439
10°	3384	3415	3434
15°	3339	3385	3417
20°	3285	3352	3404
25°	3219	3317	3382
30°	3137	3250	3353
35°	3050	3191	3322
40°	2947	3127	3290
45°	2839	3054	3255
50°	2735	2970	3227
55°	2605	2917	3204
60°	2489	2846	3194
65°	2322	2829	3230
70°	2139	2804	3326
75°	1931	2844	3499
80°	1671	2929	3288
85°	1383	2458	2458



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	120.4	3.4
10°-20°	342.6	9.6
20°-30°	512.7	14.4
30°-40°	607.1	17.1
40°-50°	618.7	17.4
50°-60°	554.6	15.6
60°-70°	434.2	12.2
70°-80°	280.0	7.9
80°-90°	82.7	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°	975.7	27.5
0°-40°	1582.8	44.5
0°-60°	2756.2	77.6
0°-90°	3553.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3553.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1273	1273	1273	1273	1273	
5°	1260	1263	1270	1272	1273	120
15°	1199	1205	1215	1225	1227	338
25°	1084	1094	1117	1132	1139	499
35°	928	940	971	1001	1011	580
45°	746	763	802	844	855	576
55°	555	574	622	665	683	498
65°	365	386	444	487	507	362
75°	186	214	274	320	336	199
85°	45	61	80	80	80	53
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1273.2	1273.2	1273.2	1273.2	1273.2
2.5°	1264.9	1268.2	1274.8	1276.5	1276.5
5°	1259.9	1263.2	1269.8	1271.5	1273.2
7.5°	1251.6	1253.3	1261.5	1264.9	1266.5
10°	1238.3	1241.7	1249.9	1254.9	1256.6
12.5°	1220.1	1225.1	1235.0	1241.7	1243.3
15°	1198.6	1205.2	1215.1	1225.1	1226.7
17.5°	1175.3	1182.0	1195.2	1206.8	1210.2
20°	1147.2	1155.5	1170.4	1183.6	1188.6
22.5°	1119.0	1125.6	1143.8	1160.4	1165.4
25°	1084.2	1094.1	1117.3	1132.2	1138.9
27.5°	1047.7	1059.3	1082.5	1102.4	1109.0
30°	1009.6	1021.2	1046.0	1070.9	1079.2
32.5°	969.8	983.0	1012.9	1037.8	1046.0
35°	928.3	939.9	971.4	1001.3	1011.2
37.5°	885.2	895.2	931.7	963.2	973.1
40°	838.8	852.1	890.2	926.7	936.6
42.5°	792.4	807.3	845.5	885.2	895.2
45°	746.0	762.6	802.4	843.8	855.4
47.5°	701.2	714.5	759.2	799.0	815.6
50°	653.2	666.4	709.5	754.3	770.9
52.5°	603.4	621.7	668.1	711.2	731.1
55°	555.3	573.6	621.7	664.8	683.0
57.5°	510.6	525.5	575.2	620.0	638.2
60°	462.5	475.8	528.8	576.9	593.5
62.5°	411.1	431.0	485.7	530.5	550.4
65°	364.7	386.3	444.3	487.4	507.3
67.5°	321.6	341.5	397.9	444.3	465.8
70°	271.9	298.4	356.4	402.8	422.7
72.5°	232.1	255.3	315.0	361.4	382.9
75°	185.7	213.8	273.5	319.9	336.5
77.5°	147.5	175.7	232.1	268.6	276.8
80°	107.8	135.9	189.0	207.2	212.2
82.5°	72.9	99.5	135.9	140.9	142.6
85°	44.8	61.3	79.6	79.6	79.6
87.5°	21.6	24.9	28.2	26.5	26.5
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)