

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: P277416

Luminaire Tested: **22CZ2-39HE-S-UNV-L82765-W2A1-U-2700K**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P277416
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-2700K
Description: CRUZE 2.0 2x2 TUNABLE WHITE LED TROFFER
WITH SMOOTH LENS
Light Source: (168) 80 CRI LEDS TUNED TO 2700K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3552.0 lumens
Efficiency: N/A
Efficacy: 117.9 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

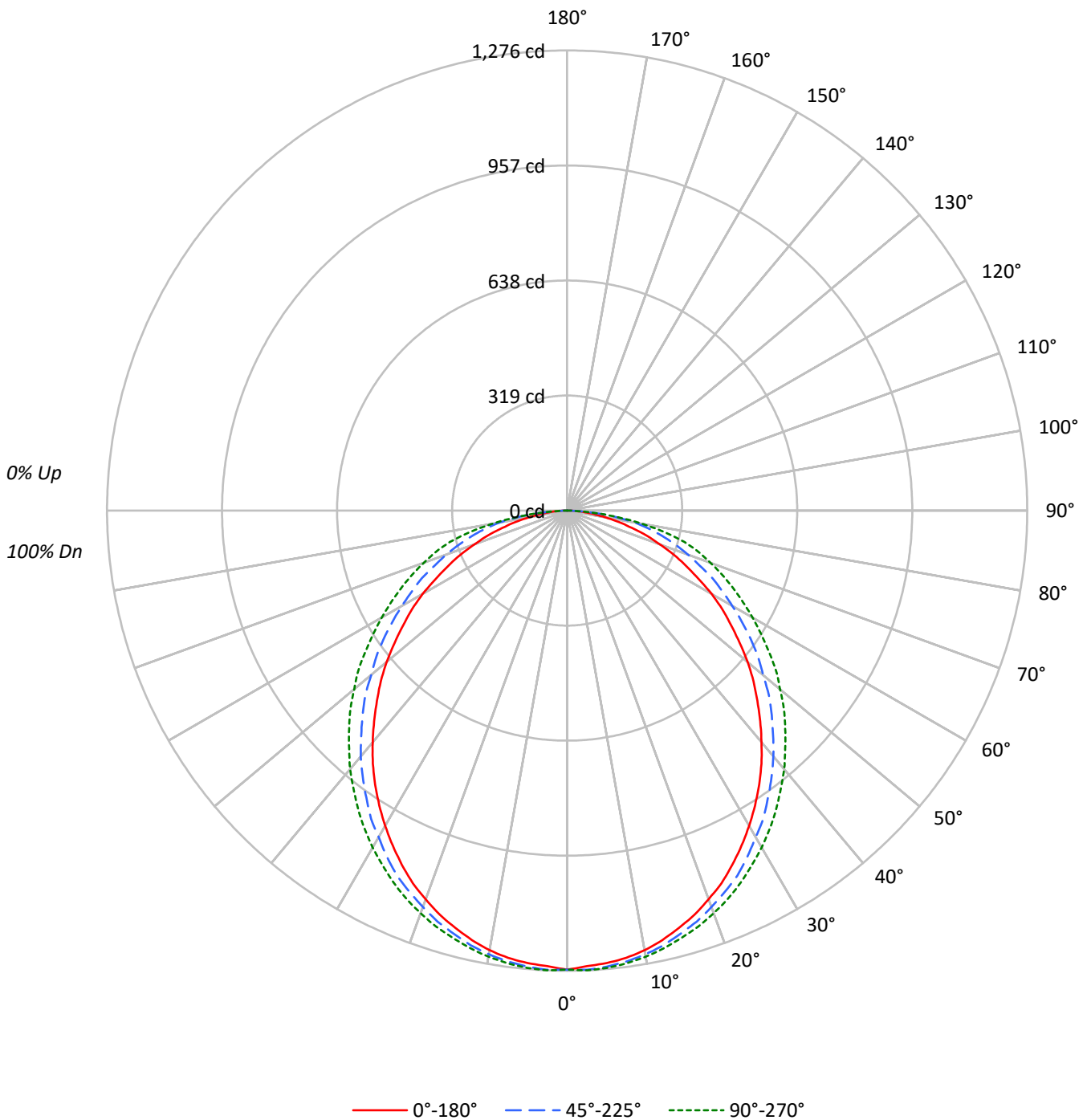
Input Watts (W): 30.132
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	3425	3425	3425
5°	3402	3429	3438
10°	3383	3415	3433
15°	3338	3384	3417
20°	3284	3351	3403
25°	3218	3317	3381
30°	3136	3249	3352
35°	3049	3190	3321
40°	2946	3126	3289
45°	2838	3052	3255
50°	2734	2969	3226
55°	2605	2916	3203
60°	2489	2845	3193
65°	2322	2828	3229
70°	2138	2803	3325
75°	1930	2844	3498
80°	1669	2927	3287
85°	1380	2455	2455



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	120.4	3.4
10°-20°	342.5	9.6
20°-30°	512.5	14.4
30°-40°	607.0	17.1
40°-50°	618.6	17.4
50°-60°	554.4	15.6
60°-70°	434.0	12.2
70°-80°	279.9	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°	975.4	27.5
0°-40°	1582.4	44.5
0°-60°	2755.4	77.6
0°-90°	3552.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3552.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1273	1273	1273	1273	1273	
5°	1260	1263	1270	1271	1273	120
15°	1198	1205	1215	1225	1226	338
25°	1084	1094	1117	1132	1139	499
35°	928	940	971	1001	1011	580
45°	746	762	802	844	855	576
55°	555	573	622	665	683	498
65°	365	386	444	487	507	362
75°	186	214	274	320	336	199
85°	45	61	80	80	80	52
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1272.8	1272.8	1272.8	1272.8	1272.8
2.5°	1264.5	1267.8	1274.4	1276.1	1276.1
5°	1259.5	1262.8	1269.5	1271.1	1272.8
7.5°	1251.2	1252.9	1261.2	1264.5	1266.2
10°	1238.0	1241.3	1249.6	1254.6	1256.2
12.5°	1219.8	1224.7	1234.7	1241.3	1243.0
15°	1198.2	1204.8	1214.8	1224.7	1226.4
17.5°	1175.0	1181.6	1194.9	1206.5	1209.8
20°	1146.8	1155.1	1170.0	1183.3	1188.3
22.5°	1118.7	1125.3	1143.5	1160.1	1165.1
25°	1083.9	1093.8	1117.0	1131.9	1138.6
27.5°	1047.4	1059.0	1082.2	1102.1	1108.7
30°	1009.3	1020.9	1045.7	1070.6	1078.9
32.5°	969.5	982.8	1012.6	1037.5	1045.7
35°	928.1	939.7	971.2	1001.0	1010.9
37.5°	885.0	894.9	931.4	962.9	972.8
40°	838.6	851.8	890.0	926.4	936.4
42.5°	792.2	807.1	845.2	885.0	894.9
45°	745.8	762.3	802.1	843.6	855.2
47.5°	701.0	714.3	759.0	798.8	815.4
50°	653.0	666.2	709.3	754.1	770.6
52.5°	603.3	621.5	667.9	711.0	730.9
55°	555.2	573.4	621.5	664.6	682.8
57.5°	510.4	525.4	575.1	619.8	638.1
60°	462.4	475.6	528.7	576.7	593.3
62.5°	411.0	430.9	485.6	530.3	550.2
65°	364.6	386.1	444.2	487.2	507.1
67.5°	321.5	341.4	397.7	444.2	465.7
70°	271.8	298.3	356.3	402.7	422.6
72.5°	232.0	255.2	314.9	361.3	382.8
75°	185.6	213.8	273.5	319.9	336.4
77.5°	147.5	175.7	232.0	268.5	276.8
80°	107.7	135.9	188.9	207.2	212.1
82.5°	72.9	99.4	135.9	140.9	142.5
85°	44.7	61.3	79.5	79.5	79.5
87.5°	21.5	24.9	28.2	26.5	26.5
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)