

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: P277286

Luminaire Tested: **22CZ2-29HE-UNV-L92765-W2A1-U-3500K**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P277286  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1805-783-27)  
Test Lab: INNOVATION CENTER(G3)  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: METALUX  
Catalog Number: 22CZ2-29HE-UNV-L92765-W2A1-U-3500K  
Description: CRUZE 2.0 2x2 TUNABLE WHITE LED TROFFER  
WITH RIBBED LENS  
Light Source: (168) 90 CRI LEDS TUNED TO 3500K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 2272.0 lumens  
Efficiency: N/A  
Efficacy: 108.6 lumens/watt  
Spacing Criteria (0/90/45): 1.19 / 1.27 / 1.36  
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')  
CIE Type: Direct

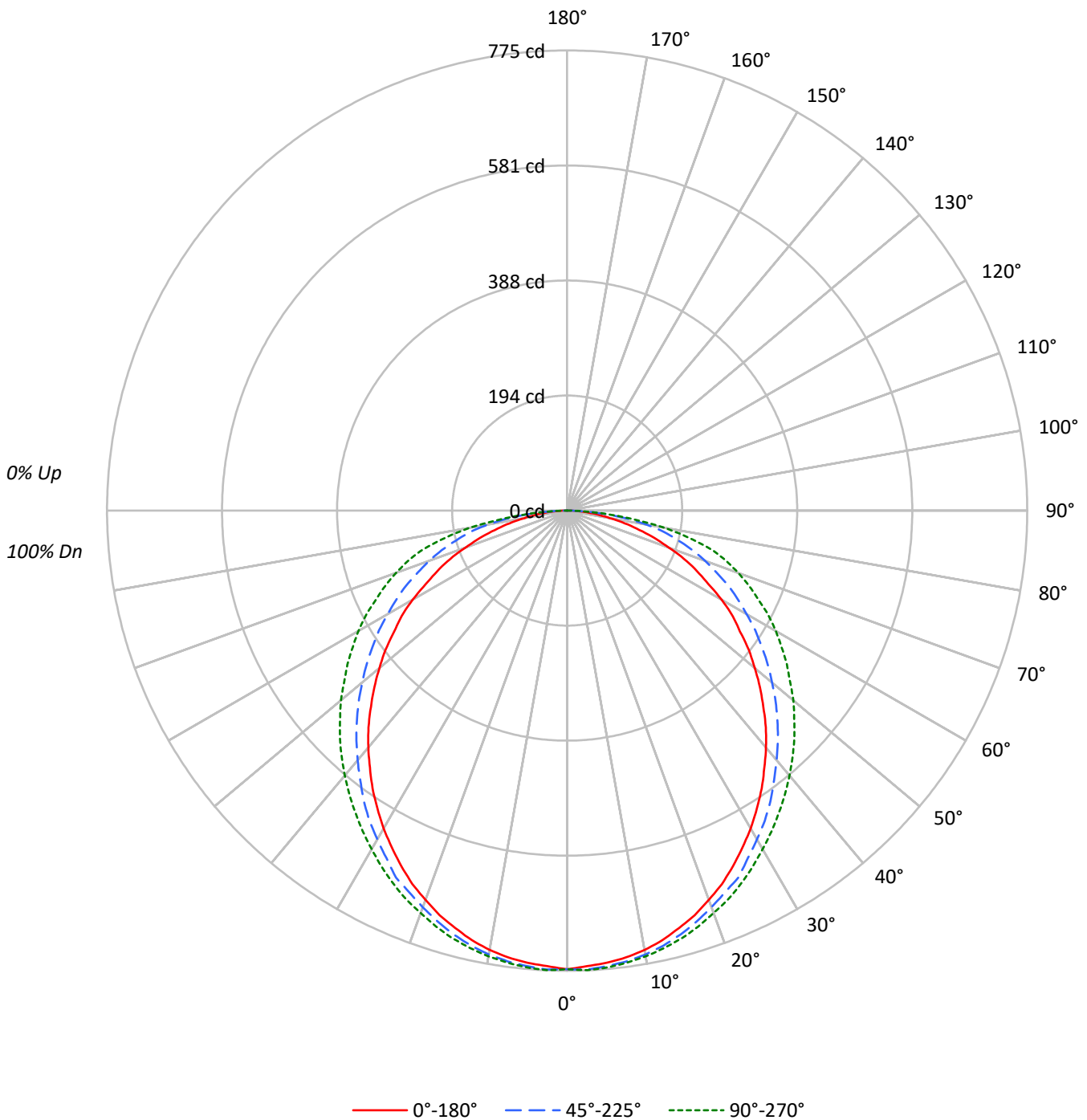
Input Watts (W): 20.925  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



TEST NUMBER: P277286

CATALOG NUMBER: 22CZ2-29HE-UNV-L92765-W2A1-U-3500K

### Luminous Intensity Polar Plot





TEST NUMBER: P277286

CATALOG NUMBER: 22CZ2-29HE-UNV-L92765-W2A1-U-3500K

**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	98	94	105	101	96	93	96	93	90	92	90	87	89	86	84	82
2	98	89	82	76	95	87	81	75	84	78	73	80	76	71	77	73	70	68
3	89	78	69	63	86	76	68	62	73	66	61	70	65	60	68	63	59	56
4	81	69	60	53	79	67	59	52	65	57	52	63	56	51	60	55	50	48
5	75	61	52	45	72	60	52	45	58	50	44	56	49	44	54	48	44	41
6	69	55	46	39	67	54	46	39	52	45	39	51	44	39	49	43	38	36
7	64	50	41	35	62	49	41	35	48	40	34	46	39	34	45	39	34	32
8	59	46	37	31	58	45	37	31	44	36	31	42	35	30	41	35	30	28
9	56	42	34	28	54	41	33	28	40	33	28	39	32	27	38	32	27	25
10	52	39	31	25	51	38	30	25	37	30	25	36	30	25	35	29	25	23

**AVERAGE LUMINANCE (cd/sqm):**

	0°	45°	90°
0°	2079	2079	2079
5°	2066	2081	2087
10°	2053	2074	2084
15°	2028	2059	2077
20°	1998	2036	2065
25°	1962	2025	2058
30°	1921	1987	2046
35°	1877	1961	2042
40°	1830	1928	2046
45°	1778	1906	2059
50°	1727	1886	2083
55°	1668	1878	2119
60°	1618	1877	2184
65°	1538	1908	2264
70°	1434	1944	2410
75°	1313	2011	2603
80°	1144	2097	2565
85°	1000	1865	2038



TEST NUMBER: P277286

CATALOG NUMBER: 22CZ2-29HE-UNV-L92765-W2A1-U-3500K

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	73.1	3.2
10°-20°	208.1	9.2
20°-30°	312.4	13.7
30°-40°	373.3	16.4
40°-50°	388.2	17.1
50°-60°	359.7	15.8
60°-70°	295.1	13.0
70°-80°	199.5	8.8
80°-90°	62.7	2.8
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°	593.5	26.1
0°-40°	966.8	42.6
0°-60°	1714.7	75.5
0°-90°	2272.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2272.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	772	772	772	772	772	
5°	765	766	770	771	772	73
15°	728	731	739	744	746	205
25°	661	666	682	690	693	304
35°	571	579	597	615	622	357
45°	467	476	501	530	541	361
55°	356	367	400	436	452	319
65°	242	255	300	339	356	239
75°	126	148	193	232	250	134
85°	32	45	60	67	66	37
90°	0	0	0	0	0	



TEST NUMBER: P277286

CATALOG NUMBER: 22CZ2-29HE-UNV-L92765-W2A1-U-3500K

**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	772.5	772.5	772.5	772.5	772.5
2.5°	768.0	770.3	773.6	774.8	774.8
5°	764.7	765.8	770.3	771.4	772.5
7.5°	759.1	761.3	765.8	766.9	768.0
10°	751.3	753.5	759.1	761.3	762.5
12.5°	741.2	743.5	750.2	753.5	754.6
15°	727.8	731.2	739.0	743.5	745.7
17.5°	714.4	717.7	725.6	732.3	734.5
20°	697.6	705.4	711.0	720.0	721.1
22.5°	680.8	685.3	695.4	704.3	708.8
25°	660.7	666.3	682.0	689.8	693.1
27.5°	639.5	647.3	659.6	671.9	676.4
30°	618.2	623.8	639.5	654.0	658.5
32.5°	594.8	602.6	619.4	633.9	640.6
35°	571.3	579.1	597.0	614.9	621.6
37.5°	545.6	554.5	572.4	593.6	602.6
40°	521.0	527.7	548.9	574.6	582.5
42.5°	495.3	503.1	525.4	553.4	562.3
45°	467.3	476.3	500.9	529.9	541.1
47.5°	440.5	449.4	476.3	505.3	518.7
50°	412.5	423.7	450.5	484.1	497.5
52.5°	385.7	395.8	425.9	460.6	472.9
55°	355.5	366.7	400.2	436.0	451.7
57.5°	330.9	338.7	375.6	412.5	428.2
60°	300.7	310.8	348.8	387.9	405.8
62.5°	268.3	285.1	324.2	364.5	382.3
65°	241.5	254.9	299.6	338.7	355.5
67.5°	213.5	228.1	271.7	313.0	332.0
70°	182.2	201.2	247.1	288.4	306.3
72.5°	154.3	174.4	221.4	261.6	280.6
75°	126.3	147.6	193.4	232.5	250.4
77.5°	99.5	123.0	167.7	197.9	209.1
80°	73.8	96.1	135.3	156.5	165.5
82.5°	51.4	70.4	99.5	110.7	112.9
85°	32.4	44.7	60.4	67.1	66.0
87.5°	14.5	17.9	22.4	24.6	23.5
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)