

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: P277453

Luminaire Tested: **22CZ2-29HE-S-UNV-L92765-W2A1-U-3000K**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P277453
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: 22CZ2-29HE-S-UNV-L92765-W2A1-U-3000K
Description: CRUZE 2.0 2x2 TUNABLE WHITE LED TROFFER
WITH SMOOTH LENS
Light Source: (168) 90 CRI LEDS TUNED TO 3000K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2282.0 lumens
Efficiency: N/A
Efficacy: 110.5 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

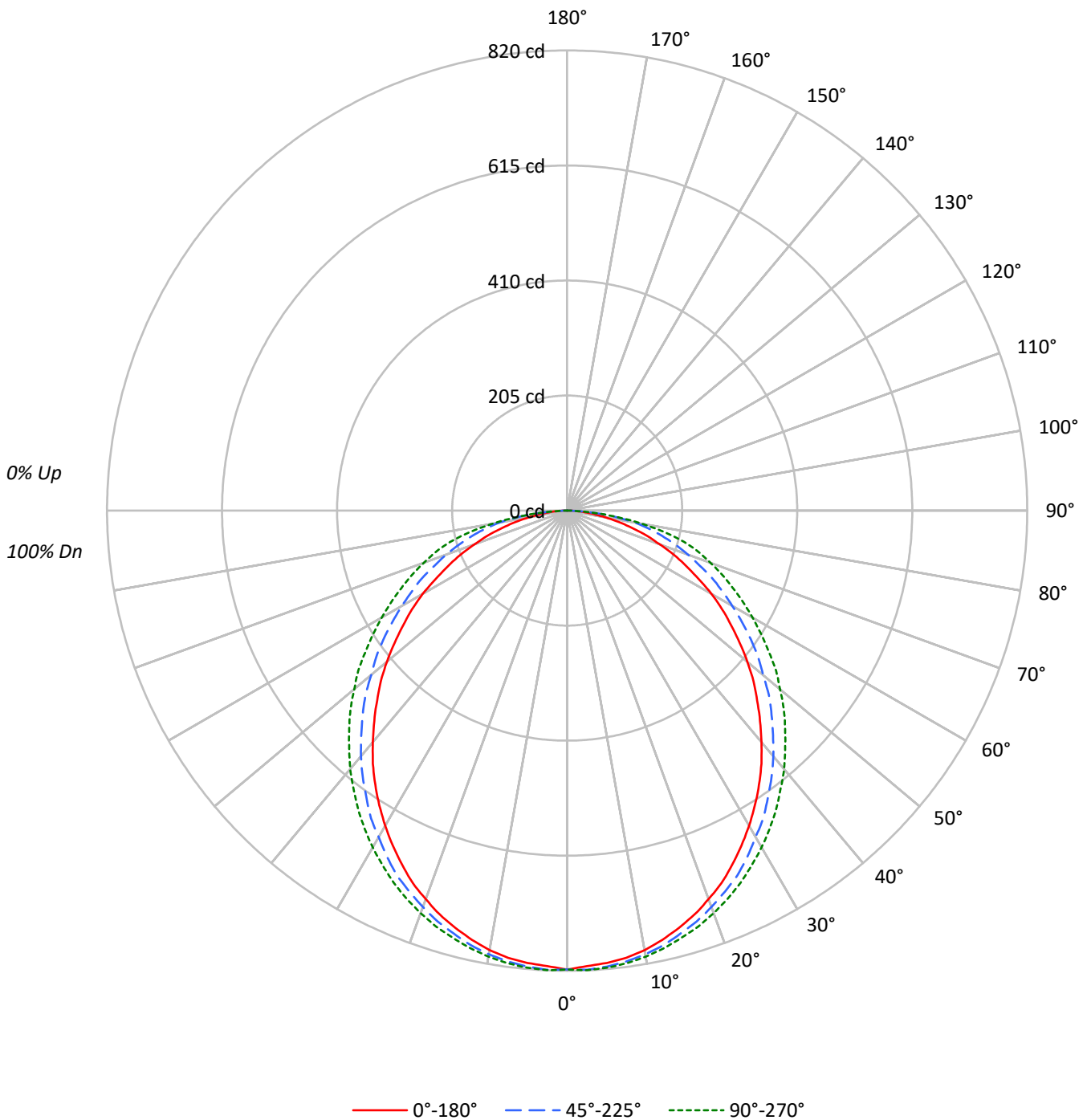
Input Watts (W): 20.646
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	2200	2200	2200
5°	2186	2203	2209
10°	2173	2194	2205
15°	2145	2174	2195
20°	2110	2153	2186
25°	2067	2131	2172
30°	2015	2087	2154
35°	1959	2050	2134
40°	1893	2009	2113
45°	1823	1961	2091
50°	1756	1908	2073
55°	1673	1873	2058
60°	1599	1828	2052
65°	1491	1817	2074
70°	1374	1801	2136
75°	1239	1827	2247
80°	1072	1881	2112
85°	886	1578	1578



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	77.3	3.4
10°-20°	220.1	9.6
20°-30°	329.3	14.4
30°-40°	389.9	17.1
40°-50°	397.4	17.4
50°-60°	356.2	15.6
60°-70°	278.9	12.2
70°-80°	179.8	7.9
80°-90°	53.1	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°	626.7	27.5
0°-40°	1016.6	44.5
0°-60°	1770.2	77.6
0°-90°	2282.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2282.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	818	818	818	818	818	
5°	809	811	816	817	818	77
15°	770	774	780	787	788	217
25°	696	703	718	727	732	321
35°	596	604	624	643	650	373
45°	479	490	515	542	549	370
55°	357	368	399	427	439	320
65°	234	248	285	313	326	233
75°	119	137	176	206	216	128
85°	29	39	51	51	51	34
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	817.7	817.7	817.7	817.7	817.7
2.5°	812.4	814.5	818.8	819.8	819.8
5°	809.2	811.3	815.6	816.6	817.7
7.5°	803.9	804.9	810.3	812.4	813.5
10°	795.4	797.5	802.8	806.0	807.1
12.5°	783.6	786.8	793.2	797.5	798.5
15°	769.8	774.1	780.4	786.8	787.9
17.5°	754.9	759.2	767.7	775.1	777.3
20°	736.8	742.1	751.7	760.2	763.4
22.5°	718.7	723.0	734.7	745.3	748.5
25°	696.3	702.7	717.6	727.2	731.5
27.5°	672.9	680.4	695.3	708.0	712.3
30°	648.4	655.9	671.8	687.8	693.1
32.5°	622.9	631.4	650.5	666.5	671.8
35°	596.2	603.7	623.9	643.1	649.5
37.5°	568.6	575.0	598.4	618.6	625.0
40°	538.8	547.3	571.8	595.2	601.6
42.5°	508.9	518.5	543.0	568.6	575.0
45°	479.1	489.8	515.3	541.9	549.4
47.5°	450.4	458.9	487.6	513.2	523.8
50°	419.5	428.0	455.7	484.5	495.1
52.5°	387.6	399.3	429.1	456.8	469.5
55°	356.7	368.4	399.3	427.0	438.7
57.5°	327.9	337.5	369.5	398.2	409.9
60°	297.1	305.6	339.6	370.5	381.2
62.5°	264.1	276.8	312.0	340.7	353.5
65°	234.2	248.1	285.3	313.0	325.8
67.5°	206.6	219.3	255.5	285.3	299.2
70°	174.6	191.7	228.9	258.7	271.5
72.5°	149.1	164.0	202.3	232.1	246.0
75°	119.2	137.4	175.7	205.5	216.1
77.5°	94.8	112.9	149.1	172.5	177.8
80°	69.2	87.3	121.4	133.1	136.3
82.5°	46.8	63.9	87.3	90.5	91.6
85°	28.7	39.4	51.1	51.1	51.1
87.5°	13.8	16.0	18.1	17.0	17.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)