

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: P277285

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

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P277285  
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-3000K  
Description: CRUZE 2.0 2x2 TUNABLE WHITE LED TROFFER WITH RIBBED LENS  
Light Source: (168) 90 CRI LEDS TUNED TO 3000K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 2164.0 lumens  
Efficiency: N/A  
Efficacy: 104.8 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

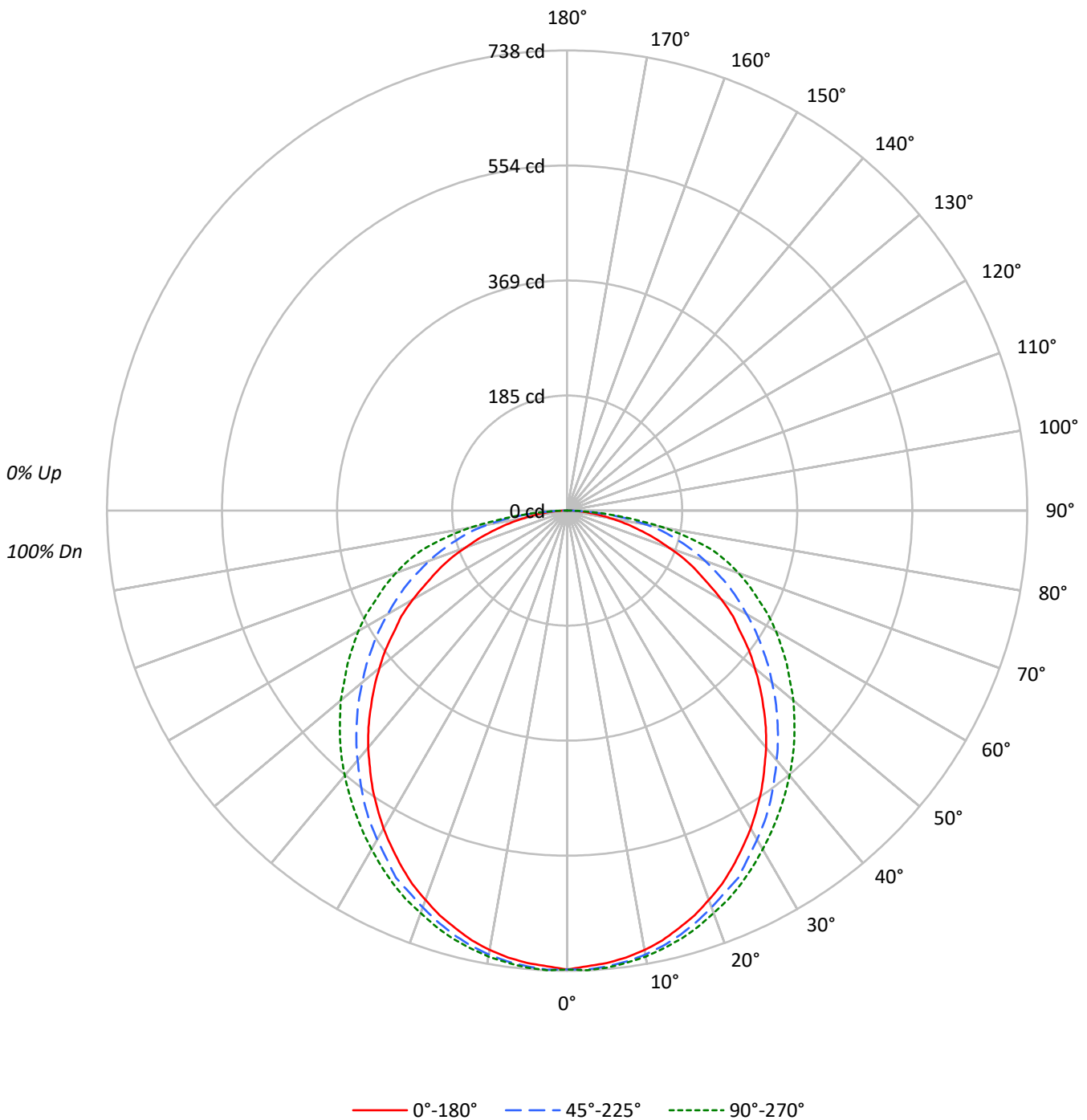
Input Watts (W): 20.646  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	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					100			
1	108	103	98	94	105	101	96	93	96	93	90	92	90	87	89	86	84	82					82			
2	98	89	82	76	95	87	81	75	84	78	73	80	76	71	77	73	70	68					68			
3	89	78	69	63	86	76	68	62	73	66	61	70	65	60	68	63	59	56					56			
4	81	69	60	53	79	67	59	52	65	57	52	63	56	51	60	55	50	48					48			
5	75	61	52	45	72	60	52	45	58	50	44	56	49	44	54	48	44	41					41			
6	69	55	46	39	67	54	46	39	52	45	39	51	44	39	49	43	38	36					36			
7	64	50	41	35	62	49	41	35	48	40	34	46	39	34	45	39	34	32					32			
8	59	46	37	31	58	45	37	31	44	36	31	42	35	30	41	35	30	28					28			
9	56	42	34	28	54	41	33	28	40	33	28	39	32	27	38	32	27	25					25			
10	52	39	31	25	51	38	30	25	37	30	25	36	30	25	35	29	25	23					23			

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

	0°	45°	90°
0°	1980	1980	1980
5°	1967	1982	1988
10°	1955	1976	1984
15°	1931	1961	1979
20°	1903	1939	1967
25°	1868	1928	1960
30°	1830	1893	1949
35°	1787	1868	1945
40°	1743	1837	1949
45°	1694	1815	1961
50°	1645	1796	1984
55°	1589	1788	2018
60°	1541	1788	2080
65°	1465	1817	2156
70°	1366	1851	2296
75°	1251	1915	2480
80°	1089	1996	2442
85°	954	1775	1939



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	69.6	3.2
10°-20°	198.2	9.2
20°-30°	297.5	13.7
30°-40°	355.5	16.4
40°-50°	369.7	17.1
50°-60°	342.7	15.8
60°-70°	281.1	13.0
70°-80°	190.0	8.8
80°-90°	59.7	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°	565.3	26.1
0°-40°	920.9	42.6
0°-60°	1633.2	75.5
0°-90°	2164.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2164.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	736	736	736	736	736	
5°	728	729	734	735	736	69
15°	693	696	704	708	710	196
25°	629	635	650	657	660	290
35°	544	552	569	586	592	340
45°	445	454	477	505	515	344
55°	339	349	381	415	430	304
65°	230	243	285	323	339	227
75°	120	141	184	222	238	128
85°	31	43	58	64	63	35
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	735.8	735.8	735.8	735.8	735.8
2.5°	731.5	733.7	736.9	737.9	737.9
5°	728.3	729.4	733.7	734.7	735.8
7.5°	723.0	725.2	729.4	730.5	731.5
10°	715.6	717.7	723.0	725.2	726.2
12.5°	706.0	708.1	714.5	717.7	718.8
15°	693.2	696.4	703.9	708.1	710.2
17.5°	680.4	683.6	691.1	697.5	699.6
20°	664.5	671.9	677.2	685.8	686.8
22.5°	648.5	652.7	662.3	670.8	675.1
25°	629.3	634.6	649.5	657.0	660.2
27.5°	609.1	616.5	628.3	640.0	644.2
30°	588.9	594.2	609.1	622.9	627.2
32.5°	566.5	573.9	589.9	603.8	610.1
35°	544.1	551.6	568.6	585.7	592.0
37.5°	519.6	528.2	545.2	565.4	573.9
40°	496.2	502.6	522.8	547.3	554.8
42.5°	471.7	479.2	500.5	527.1	535.6
45°	445.1	453.6	477.0	504.7	515.4
47.5°	419.5	428.1	453.6	481.3	494.1
50°	392.9	403.6	429.1	461.1	473.9
52.5°	367.4	377.0	405.7	438.7	450.4
55°	338.6	349.3	381.2	415.3	430.2
57.5°	315.2	322.6	357.8	392.9	407.8
60°	286.4	296.0	332.2	369.5	386.5
62.5°	255.6	271.5	308.8	347.1	364.2
65°	230.0	242.8	285.4	322.6	338.6
67.5°	203.4	217.2	258.8	298.2	316.3
70°	173.6	191.7	235.3	274.7	291.8
72.5°	146.9	166.1	210.8	249.2	267.3
75°	120.3	140.6	184.2	221.5	238.5
77.5°	94.8	117.1	159.7	188.5	199.1
80°	70.3	91.6	128.8	149.1	157.6
82.5°	49.0	67.1	94.8	105.4	107.5
85°	30.9	42.6	57.5	63.9	62.8
87.5°	13.8	17.0	21.3	23.4	22.4
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)