

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: P277192

Luminaire Tested: **22CZ2-29HE-UNV-L93050-W2A1-U-3000K**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P277192  
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-L93050-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: 2067.0 lumens  
Efficiency: N/A  
Efficacy: 97.0 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

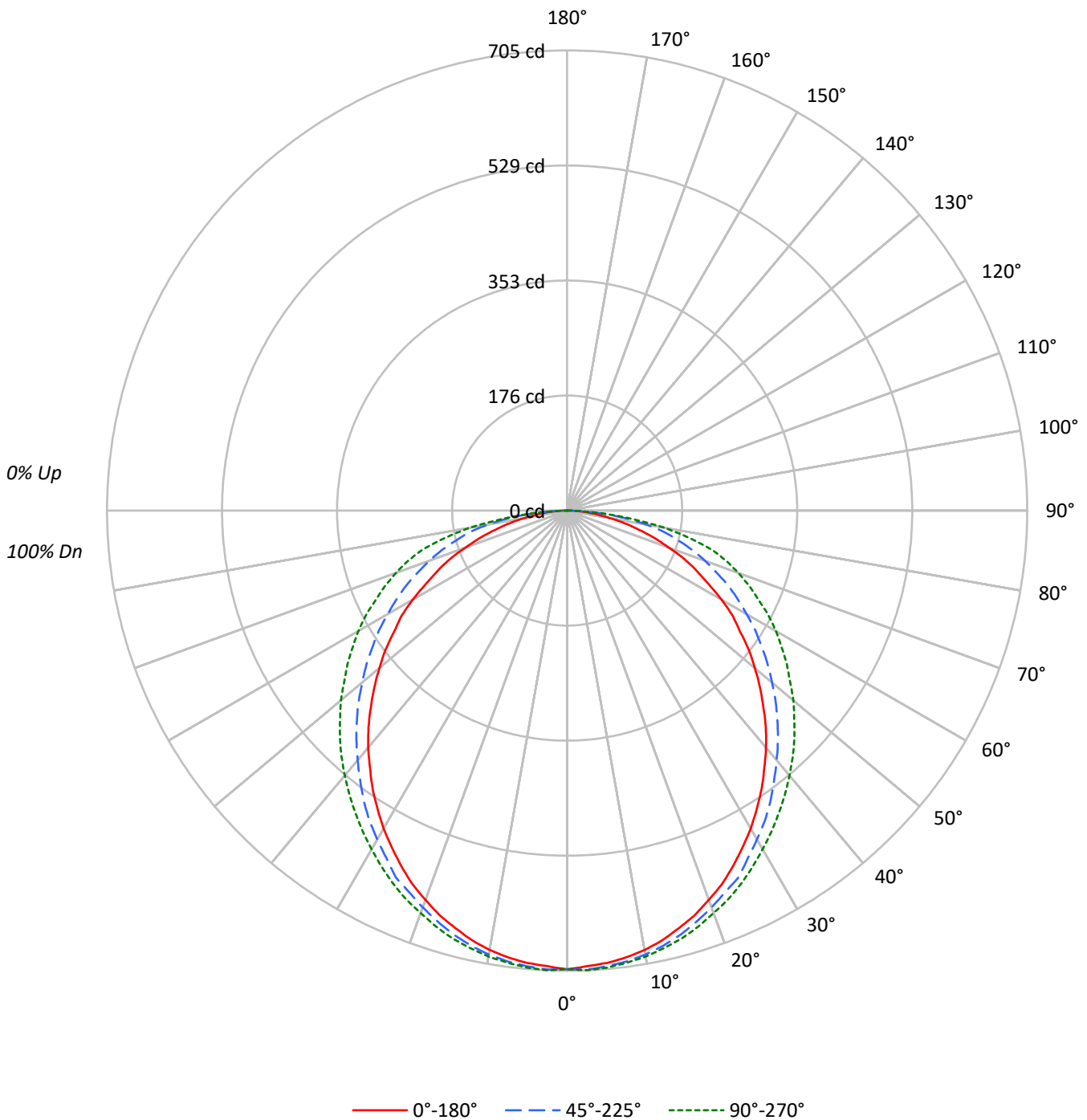
Input Watts (W): 21.311136  
Input Voltage (V): 120  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	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°	1891	1891	1891
5°	1879	1893	1898
10°	1868	1887	1896
15°	1845	1873	1890
20°	1818	1853	1879
25°	1785	1842	1872
30°	1748	1808	1862
35°	1707	1784	1858
40°	1665	1754	1861
45°	1618	1734	1874
50°	1571	1716	1895
55°	1517	1708	1928
60°	1473	1708	1987
65°	1399	1736	2059
70°	1304	1769	2193
75°	1195	1830	2368
80°	1040	1908	2332
85°	911	1695	1853



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	66.5	3.2
10°-20°	189.3	9.2
20°-30°	284.2	13.7
30°-40°	339.6	16.4
40°-50°	353.1	17.1
50°-60°	327.3	15.8
60°-70°	268.5	13.0
70°-80°	181.5	8.8
80°-90°	57.0	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°	540.0	26.1
0°-40°	879.6	42.6
0°-60°	1560.0	75.5
0°-90°	2067.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2067.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	703	703	703	703	703	
5°	696	697	701	702	703	66
15°	662	665	672	676	678	187
25°	601	606	620	628	631	277
35°	520	527	543	559	566	325
45°	425	433	456	482	492	328
55°	323	334	364	397	411	291
65°	220	232	273	308	323	217
75°	115	134	176	212	228	122
85°	30	41	55	61	60	33
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	702.8	702.8	702.8	702.8	702.8
2.5°	698.7	700.8	703.8	704.9	704.9
5°	695.7	696.7	700.8	701.8	702.8
7.5°	690.6	692.6	696.7	697.7	698.7
10°	683.5	685.5	690.6	692.6	693.7
12.5°	674.3	676.4	682.5	685.5	686.5
15°	662.1	665.2	672.3	676.4	678.4
17.5°	649.9	653.0	660.1	666.2	668.2
20°	634.7	641.8	646.9	655.0	656.0
22.5°	619.4	623.5	632.6	640.8	644.8
25°	601.1	606.2	620.4	627.6	630.6
27.5°	581.8	588.9	600.1	611.3	615.3
30°	562.5	567.5	581.8	595.0	599.1
32.5°	541.1	548.2	563.5	576.7	582.8
35°	519.7	526.9	543.1	559.4	565.5
37.5°	496.3	504.5	520.8	540.1	548.2
40°	474.0	480.1	499.4	522.8	529.9
42.5°	450.6	457.7	478.0	503.5	511.6
45°	425.1	433.3	455.7	482.1	492.3
47.5°	400.7	408.9	433.3	459.7	471.9
50°	375.3	385.5	409.9	440.4	452.6
52.5°	350.9	360.1	387.5	419.0	430.2
55°	323.4	333.6	364.1	396.7	410.9
57.5°	301.1	308.2	341.7	375.3	389.6
60°	273.6	282.8	317.3	352.9	369.2
62.5°	244.1	259.4	295.0	331.6	347.8
65°	219.7	231.9	272.6	308.2	323.4
67.5°	194.3	207.5	247.2	284.8	302.1
70°	165.8	183.1	224.8	262.4	278.7
72.5°	140.4	158.7	201.4	238.0	255.3
75°	114.9	134.3	176.0	211.6	227.8
77.5°	90.5	111.9	152.6	180.0	190.2
80°	67.1	87.5	123.1	142.4	150.5
82.5°	46.8	64.1	90.5	100.7	102.7
85°	29.5	40.7	54.9	61.0	60.0
87.5°	13.2	16.3	20.3	22.4	21.4
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)