

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: P277182

Luminaire Tested: **22CZ2-20HE-UNV-L93050-W2A1-U-3000K**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P277182  
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: 22CZ2-20HE-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: 1566.0 lumens  
Efficiency: N/A  
Efficacy: 98.6 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

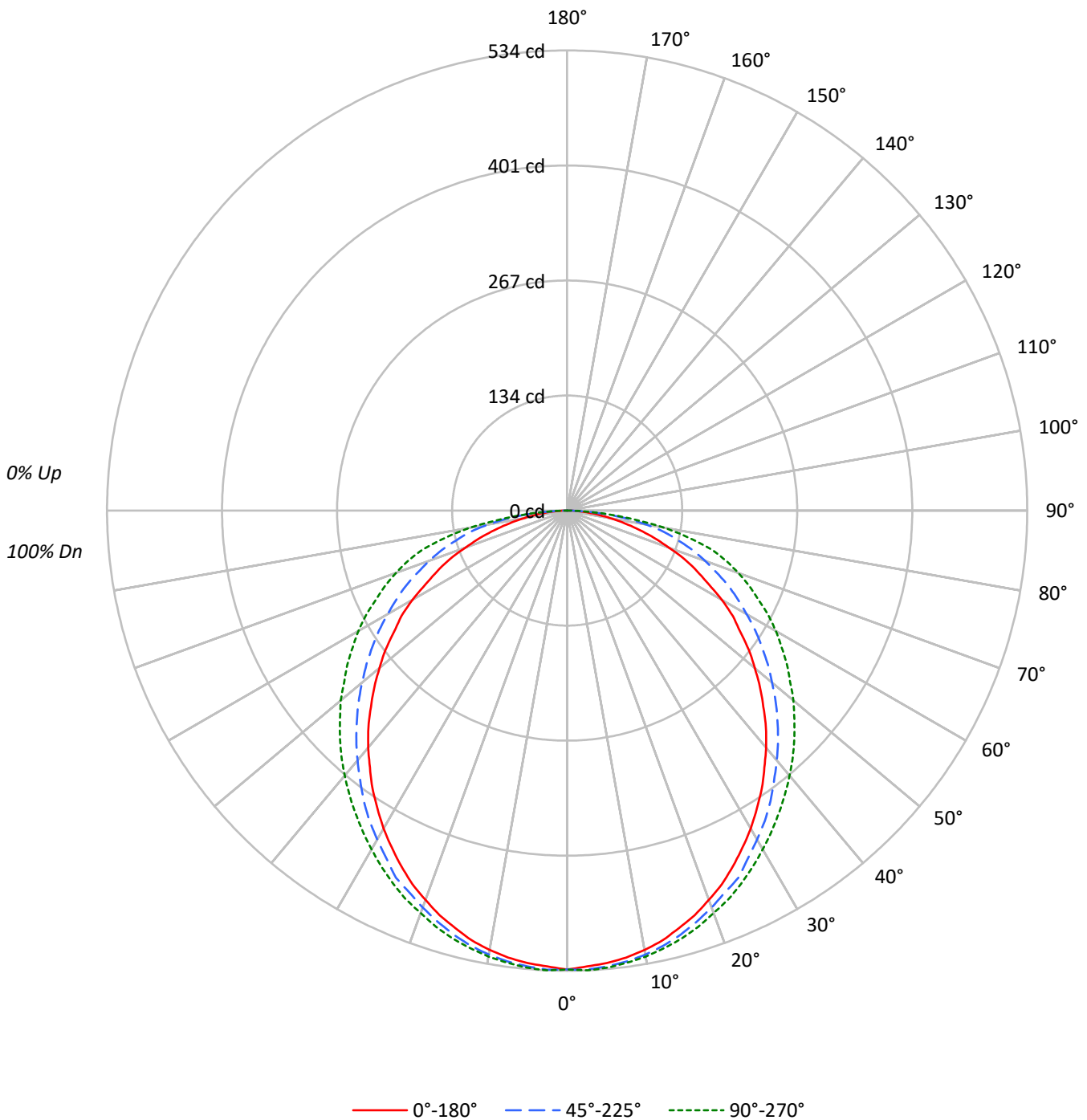
Input Watts (W): 15.888213  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	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°	1433	1433	1433
5°	1424	1434	1438
10°	1415	1430	1436
15°	1397	1419	1432
20°	1377	1403	1423
25°	1352	1396	1419
30°	1324	1370	1410
35°	1294	1352	1407
40°	1261	1329	1410
45°	1226	1314	1419
50°	1190	1300	1436
55°	1149	1294	1460
60°	1116	1294	1505
65°	1060	1315	1560
70°	988	1340	1661
75°	906	1386	1795
80°	789	1444	1767
85°	689	1284	1405



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	50.4	3.2
10°-20°	143.4	9.2
20°-30°	215.3	13.7
30°-40°	257.3	16.4
40°-50°	267.5	17.1
50°-60°	248.0	15.8
60°-70°	203.4	13.0
70°-80°	137.5	8.8
80°-90°	43.2	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°	409.1	26.1
0°-40°	666.4	42.6
0°-60°	1181.9	75.5
0°-90°	1566.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1566.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	532	532	532	532	532	
5°	527	528	531	532	532	50
15°	502	504	509	512	514	141
25°	455	459	470	475	478	210
35°	394	399	412	424	428	246
45°	322	328	345	365	373	249
55°	245	253	276	300	311	220
65°	166	176	206	234	245	165
75°	87	102	133	160	173	92
85°	22	31	42	46	46	25
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	532.5	532.5	532.5	532.5	532.5
2.5°	529.4	530.9	533.2	534.0	534.0
5°	527.1	527.8	530.9	531.7	532.5
7.5°	523.2	524.8	527.8	528.6	529.4
10°	517.8	519.4	523.2	524.8	525.5
12.5°	510.9	512.4	517.1	519.4	520.1
15°	501.6	504.0	509.4	512.4	514.0
17.5°	492.4	494.7	500.1	504.7	506.3
20°	480.8	486.2	490.1	496.3	497.0
22.5°	469.3	472.4	479.3	485.5	488.5
25°	455.4	459.3	470.1	475.4	477.8
27.5°	440.8	446.2	454.6	463.1	466.2
30°	426.1	430.0	440.8	450.8	453.9
32.5°	409.9	415.3	426.9	436.9	441.5
35°	393.8	399.2	411.5	423.8	428.4
37.5°	376.0	382.2	394.5	409.2	415.3
40°	359.1	363.7	378.4	396.1	401.5
42.5°	341.4	346.8	362.2	381.4	387.6
45°	322.1	328.3	345.2	365.3	373.0
47.5°	303.6	309.8	328.3	348.3	357.5
50°	284.3	292.0	310.5	333.7	342.9
52.5°	265.8	272.8	293.6	317.5	326.0
55°	245.0	252.7	275.9	300.5	311.3
57.5°	228.1	233.5	258.9	284.3	295.1
60°	207.3	214.2	240.4	267.4	279.7
62.5°	184.9	196.5	223.5	251.2	263.5
65°	166.4	175.7	206.5	233.5	245.0
67.5°	147.2	157.2	187.3	215.8	228.9
70°	125.6	138.7	170.3	198.8	211.1
72.5°	106.3	120.2	152.6	180.3	193.4
75°	87.1	101.7	133.3	160.3	172.6
77.5°	68.6	84.8	115.6	136.4	144.1
80°	50.9	66.3	93.2	107.9	114.0
82.5°	35.4	48.5	68.6	76.3	77.8
85°	22.3	30.8	41.6	46.2	45.5
87.5°	10.0	12.3	15.4	17.0	16.2
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)