

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: P276498

Luminaire Tested: **24CZ2-50HE-S-UNV-L82765-W2A1-U-2700K**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P276498  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1805-783-1)  
Test Lab: INNOVATION CENTER(G3)  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: METALUX  
Catalog Number: 24CZ2-50HE-S-UNV-L82765-W2A1-U-2700K  
Description: CRUZE 2.0 2x4 TUNABLE WHITE LED TROFFER  
WITH SMOOTH LENS  
Light Source: (336) 80 CRI LEDS TUNED TO 2700K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 4584.3 lumens  
Efficiency: N/A  
Efficacy: 128.4 lumens/watt  
Spacing Criteria (0/90/45): 1.2 / 1.26 / 1.35  
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')  
CIE Type: Direct

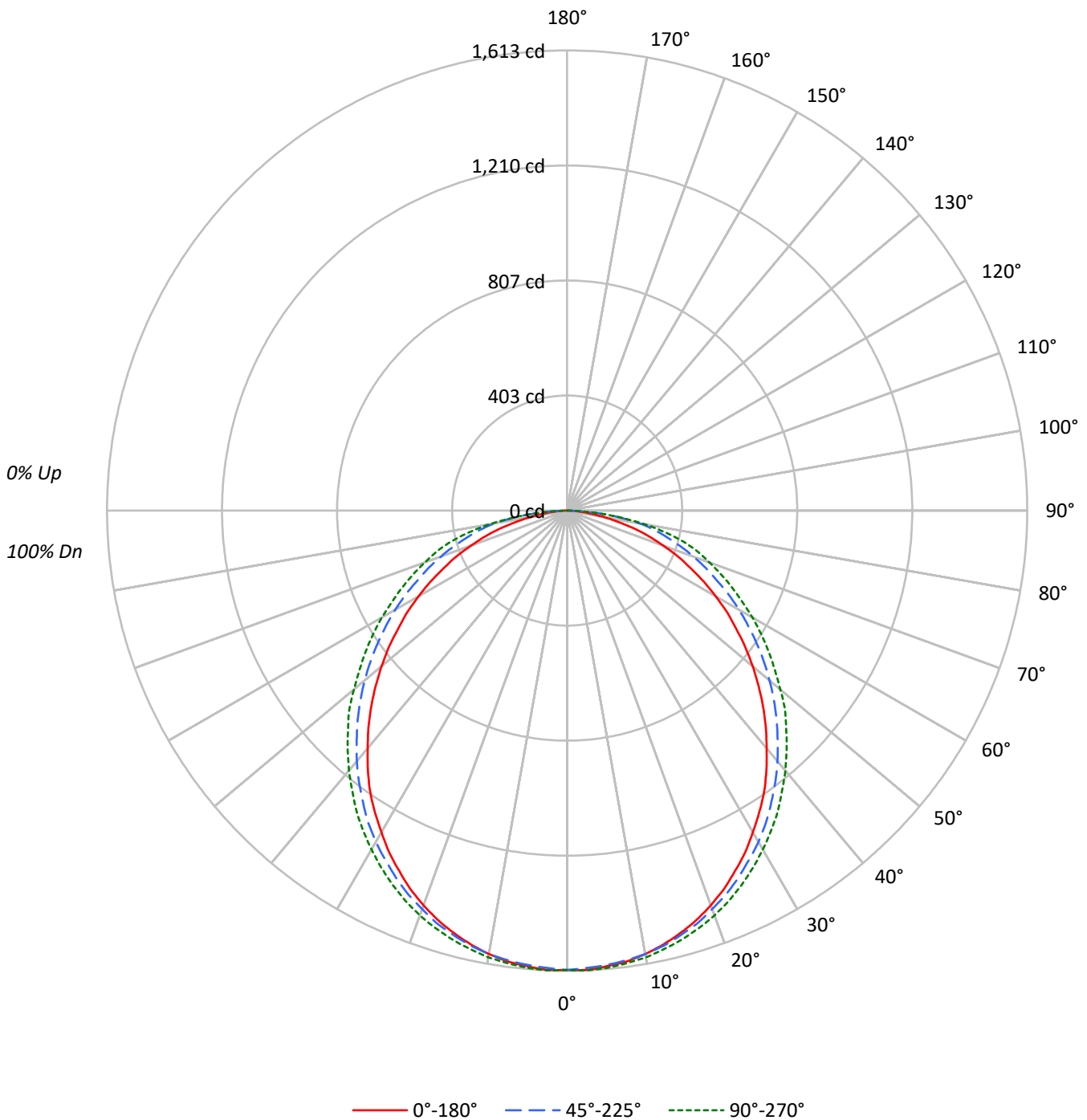
Input Watts (W): 35.712  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	93	97	93	90	93	90	88	89	87	85	83
2	98	90	83	77	96	88	81	76	84	79	74	81	76	72	78	74	71	69
3	89	79	70	64	87	77	69	63	74	67	62	71	66	61	69	64	60	58
4	82	70	61	54	80	68	60	54	66	59	53	63	57	52	61	56	51	49
5	75	62	53	46	73	61	53	46	59	51	46	57	50	45	55	49	45	42
6	70	56	47	40	68	55	47	40	53	46	40	52	45	40	50	44	39	37
7	64	51	42	36	63	50	42	36	48	41	35	47	40	35	46	39	35	33
8	60	46	38	32	58	46	37	32	44	37	32	43	36	31	42	36	31	29
9	56	43	34	29	55	42	34	29	41	34	28	40	33	28	39	33	28	26
10	53	39	31	26	51	39	31	26	38	31	26	37	30	26	36	30	26	24

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

	0°	45°	90°
0°	2167	2167	2167
5°	2165	2159	2173
10°	2157	2157	2172
15°	2136	2146	2168
20°	2108	2129	2162
25°	2069	2108	2149
30°	2023	2084	2131
35°	1978	2050	2114
40°	1910	2015	2090
45°	1848	1975	2067
50°	1777	1939	2042
55°	1698	1903	2022
60°	1618	1873	2018
65°	1516	1840	2031
70°	1404	1850	2085
75°	1256	1885	2203
80°	1016	1997	2155
85°	764	1754	1709



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	152.5	3.3
10°-20°	435.7	9.5
20°-30°	654.9	14.3
30°-40°	780.1	17.0
40°-50°	798.4	17.4
50°-60°	718.8	15.7
60°-70°	564.5	12.3
70°-80°	366.3	8.0
80°-90°	113.3	2.5
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°	1243.0	27.1
0°-40°	2023.1	44.1
0°-60°	3540.2	77.2
0°-90°	4584.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4584.3	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1610	1610	1610	1610	1610	
5°	1603	1606	1599	1608	1609	152
15°	1533	1538	1541	1554	1557	432
25°	1394	1405	1420	1443	1447	642
35°	1204	1219	1248	1278	1287	751
45°	971	994	1038	1078	1086	749
55°	724	756	811	853	862	649
65°	476	513	578	626	638	474
75°	242	288	363	412	424	256
85°	50	92	114	111	111	60
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1610.5	1610.5	1610.5	1610.5	1610.5
2.5°	1612.0	1612.0	1604.7	1612.0	1613.4
5°	1603.2	1606.1	1598.8	1607.6	1609.0
7.5°	1594.5	1594.5	1590.1	1598.8	1600.3
10°	1578.5	1579.9	1578.5	1588.7	1590.1
12.5°	1558.1	1561.0	1562.4	1572.6	1574.1
15°	1533.3	1537.7	1540.6	1553.7	1556.6
17.5°	1505.7	1510.0	1517.3	1531.9	1534.8
20°	1472.2	1478.0	1486.7	1505.7	1510.0
22.5°	1435.8	1441.6	1456.1	1473.6	1480.9
25°	1393.5	1405.2	1419.7	1443.0	1447.4
27.5°	1351.3	1361.5	1380.4	1405.2	1411.0
30°	1301.8	1317.8	1341.1	1365.9	1371.7
32.5°	1253.7	1269.8	1297.4	1323.6	1330.9
35°	1204.2	1218.8	1247.9	1278.5	1287.2
37.5°	1147.4	1166.4	1198.4	1229.0	1237.7
40°	1087.7	1111.0	1147.4	1179.5	1189.7
42.5°	1030.9	1055.7	1092.1	1127.1	1138.7
45°	971.2	994.5	1038.2	1077.5	1086.3
47.5°	910.1	936.3	982.9	1022.2	1036.8
50°	848.9	876.6	926.1	966.9	975.6
52.5°	787.8	816.9	869.3	913.0	917.4
55°	723.7	755.7	811.1	853.3	862.0
57.5°	665.5	693.1	752.8	796.5	806.7
60°	601.4	632.0	696.0	736.8	749.9
62.5°	540.2	572.3	639.2	680.0	691.7
65°	476.2	512.6	578.1	626.1	637.8
67.5°	420.8	455.8	525.7	572.3	583.9
70°	356.8	396.1	470.3	518.4	530.0
72.5°	301.4	342.2	416.5	463.1	480.5
75°	241.7	288.3	362.6	412.1	423.7
77.5°	183.5	237.4	313.1	350.9	350.9
80°	131.1	187.8	257.7	275.2	278.1
82.5°	85.9	141.2	190.8	189.3	189.3
85°	49.5	91.7	113.6	110.7	110.7
87.5°	18.9	37.9	40.8	40.8	39.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)