

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: P276329

Luminaire Tested: **24CZ2-45HE-S-UNV-L83050-W2A1-U-4000K**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P276329
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: 24CZ2-45HE-S-UNV-L83050-W2A1-U-4000K
Description: CRUZE 2.0 2x4 TUNABLE WHITE LED TROFFER
WITH SMOOTH LENS
Light Source: (336) 80 CRI LEDS TUNED TO 4000K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4681.0 lumens
Efficiency: N/A
Efficacy: 145.6 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

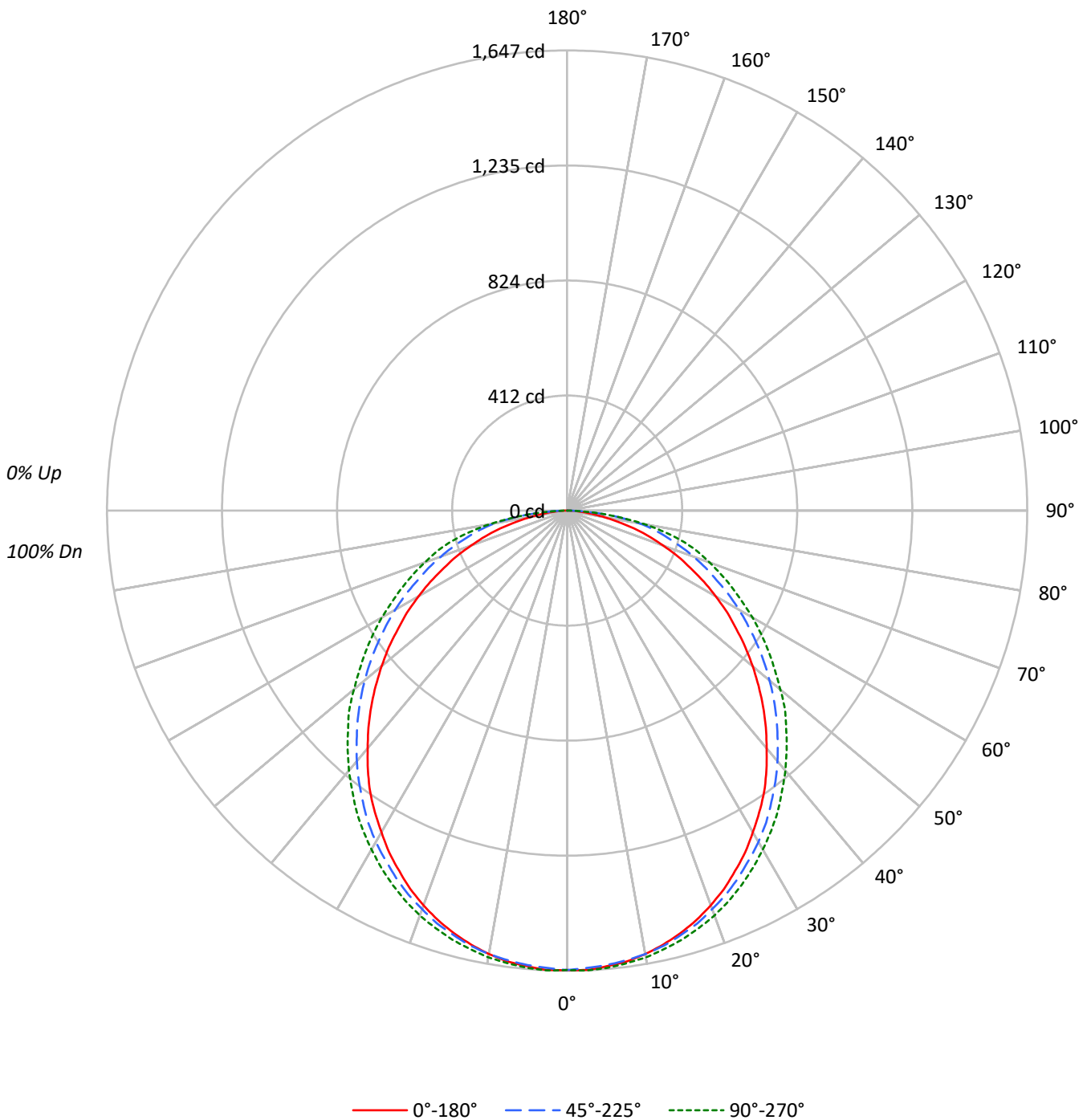
Input Watts (W): 32.156982
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	2213	2213	2213
5°	2211	2205	2219
10°	2202	2202	2218
15°	2181	2191	2214
20°	2152	2174	2208
25°	2112	2152	2194
30°	2065	2128	2176
35°	2020	2093	2159
40°	1951	2058	2134
45°	1887	2017	2111
50°	1814	1979	2085
55°	1734	1943	2065
60°	1653	1912	2060
65°	1548	1879	2073
70°	1433	1889	2129
75°	1283	1925	2249
80°	1037	2039	2201
85°	781	1791	1744



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	155.7	3.3
10°-20°	444.8	9.5
20°-30°	668.7	14.3
30°-40°	796.5	17.0
40°-50°	815.2	17.4
50°-60°	733.9	15.7
60°-70°	576.4	12.3
70°-80°	374.1	8.0
80°-90°	115.7	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°	1269.2	27.1
0°-40°	2065.7	44.1
0°-60°	3614.9	77.2
0°-90°	4681.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4681.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1644	1644	1644	1644	1644	
5°	1637	1640	1633	1642	1643	156
15°	1566	1570	1573	1586	1590	441
25°	1423	1435	1450	1474	1478	655
35°	1230	1244	1274	1306	1314	767
45°	992	1016	1060	1100	1109	765
55°	739	772	828	871	880	662
65°	486	523	590	639	651	484
75°	247	294	370	421	433	261
85°	51	94	116	113	113	61
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1644.5	1644.5	1644.5	1644.5	1644.5
2.5°	1646.0	1646.0	1638.5	1646.0	1647.4
5°	1637.0	1640.0	1632.6	1641.5	1643.0
7.5°	1628.1	1628.1	1623.6	1632.6	1634.1
10°	1611.8	1613.2	1611.8	1622.2	1623.6
12.5°	1590.9	1593.9	1595.4	1605.8	1607.3
15°	1565.7	1570.1	1573.1	1586.5	1589.5
17.5°	1537.4	1541.9	1549.3	1564.2	1567.1
20°	1503.2	1509.2	1518.1	1537.4	1541.9
22.5°	1466.0	1472.0	1486.9	1504.7	1512.1
25°	1422.9	1434.8	1449.7	1473.5	1477.9
27.5°	1379.8	1390.2	1409.5	1434.8	1440.8
30°	1329.3	1345.6	1369.4	1394.7	1400.6
32.5°	1280.2	1296.5	1324.8	1351.6	1359.0
35°	1229.6	1244.5	1274.2	1305.5	1314.4
37.5°	1171.6	1191.0	1223.7	1254.9	1263.8
40°	1110.7	1134.5	1171.6	1204.4	1214.8
42.5°	1052.7	1078.0	1115.1	1150.8	1162.7
45°	991.7	1015.5	1060.1	1100.3	1109.2
47.5°	929.3	956.1	1003.6	1043.8	1058.6
50°	866.8	895.1	945.6	987.3	996.2
52.5°	804.4	834.1	887.7	932.3	936.7
55°	739.0	771.7	828.2	871.3	880.2
57.5°	679.5	707.7	768.7	813.3	823.7
60°	614.1	645.3	710.7	752.4	765.7
62.5°	551.6	584.3	652.7	694.4	706.3
65°	486.2	523.4	590.3	639.3	651.2
67.5°	429.7	465.4	536.8	584.3	596.2
70°	364.3	404.4	480.3	529.3	541.2
72.5°	307.8	349.4	425.2	472.8	490.7
75°	246.8	294.4	370.2	420.8	432.7
77.5°	187.3	242.4	319.7	358.3	358.3
80°	133.8	191.8	263.2	281.0	284.0
82.5°	87.7	144.2	194.8	193.3	193.3
85°	50.6	93.7	116.0	113.0	113.0
87.5°	19.3	38.7	41.6	41.6	40.1
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)