

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: P295072

Luminaire Tested: **24CZ2-65-HRP-UNV-L935-CD1-U**

Issue Date: 12/2/2019

This test was performed under the Supervised Manufacturer's Testing Program. The results of this test have not been influenced by sources from within Cooper Lighting Solutions or from external interests.

Test Information

Test Method: LM-79-08
Report Number: P295072
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1808-918-20)
Test Lab: INNOVATIONS CENTER(G3)
Issue Date: 12/2/2019
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 24CZ2-65-HRP-UNV-L935-CD1-U
Description: 2'x4' TROFFER LED MODULE, HIGH EFFICIENCY ROUND PERF. LENS
Light Source: (112) 3500K CCT, 90 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER
Luminaire Equipment: Sample No. Condition Description

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4316.5 lumens
Efficiency: N/A
Efficacy: 68.7 lumens/watt
Spacing Criteria (0/90/45): 1.24 / 1.3 / 1.4
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

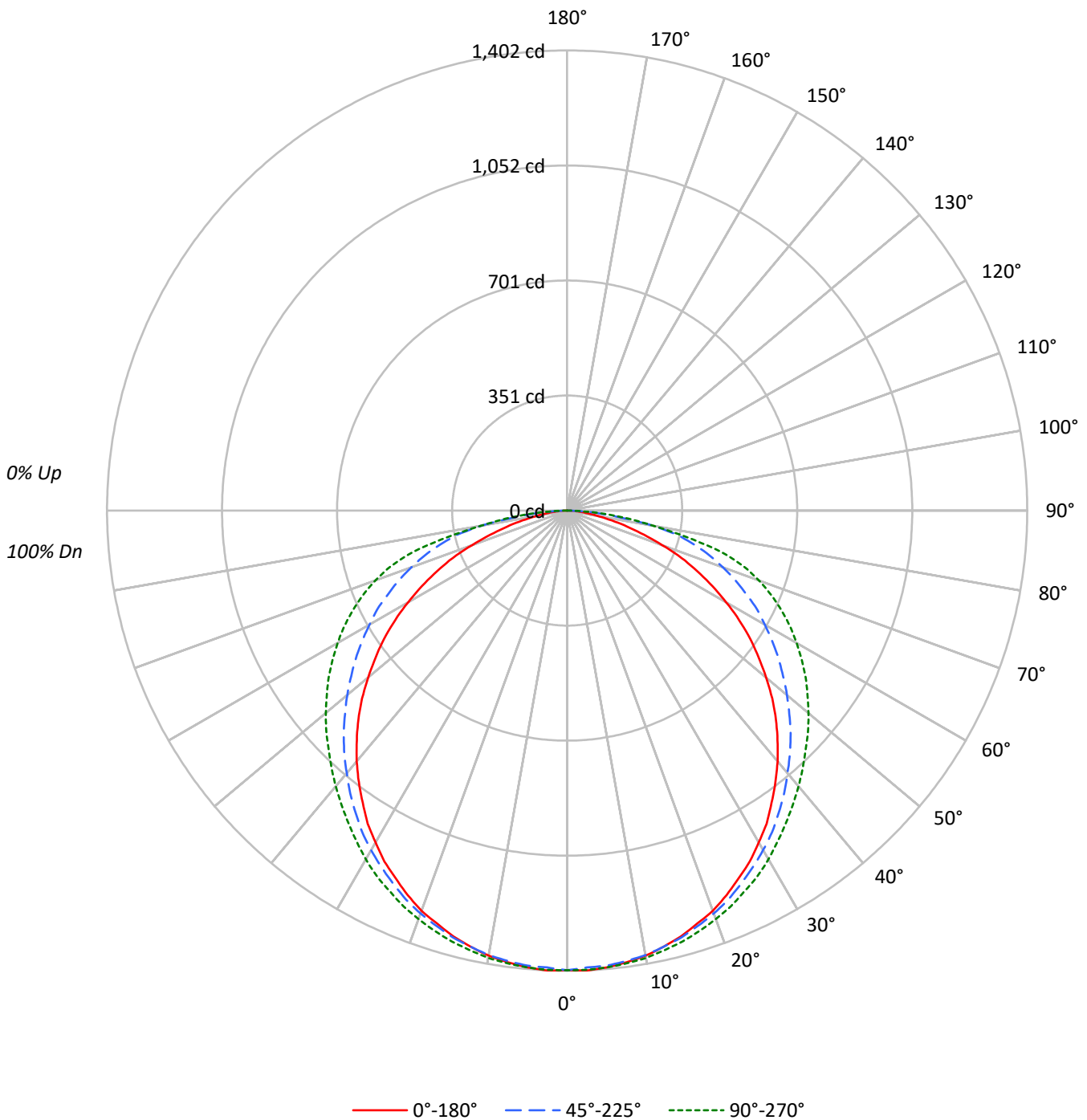
Input Watts (W): 62.8
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10
RCR																	
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102
1	108	103	98	94	105	101	96	93	96	93	90	92	90	87	89	86	84
2	98	89	82	76	95	87	80	75	83	78	73	80	75	71	77	73	70
3	89	78	69	62	86	76	68	62	73	66	61	70	64	59	68	63	58
4	81	68	59	52	79	67	59	52	65	57	51	62	56	50	60	54	50
5	74	61	52	45	72	60	51	45	58	50	44	56	49	44	54	48	43
6	69	55	46	39	67	54	45	39	52	44	38	50	43	38	49	42	38
7	63	50	41	34	62	49	40	34	47	39	34	46	39	34	44	38	33
8	59	45	36	30	57	44	36	30	43	36	30	42	35	30	41	34	30
9	55	41	33	27	54	41	33	27	40	32	27	39	32	27	38	31	27
10	52	38	30	25	50	38	30	25	37	30	25	36	29	24	35	29	24

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	1884	1884	1884
5°	1887	1879	1887
10°	1881	1879	1891
15°	1870	1875	1893
20°	1858	1871	1897
25°	1835	1862	1899
30°	1814	1856	1906
35°	1784	1846	1909
40°	1752	1835	1927
45°	1712	1833	1956
50°	1657	1831	2009
55°	1598	1844	2081
60°	1507	1872	2174
65°	1392	1916	2295
70°	1216	1983	2445
75°	986	2086	2527
80°	728	2044	2044
85°	557	1507	1701



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	132.7	3.1
10°-20°	381.0	8.8
20°-30°	580.0	13.4
30°-40°	704.3	16.3
40°-50°	744.0	17.2
50°-60°	702.1	16.3
60°-70°	583.8	13.5
70°-80°	384.1	8.9
80°-90°	104.7	2.4
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°	1093.7	25.3
0°-40°	1797.9	41.7
0°-60°	3244.0	75.2
0°-90°	4316.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4316.5	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1400	1400	1400	1400	1400	
5°	1397	1397	1392	1397	1397	133
15°	1343	1344	1346	1359	1359	379
25°	1236	1243	1254	1276	1279	570
35°	1086	1099	1124	1153	1162	680
45°	900	918	963	1010	1028	693
55°	681	710	786	860	887	607
65°	437	488	602	690	721	432
75°	190	276	401	475	486	204
85°	36	80	98	108	110	44
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1400.5	1400.5	1400.5	1400.5	1400.5
2.5°	1402.3	1400.5	1393.3	1400.5	1400.5
5°	1396.9	1396.9	1391.5	1396.9	1396.9
7.5°	1387.9	1387.9	1384.2	1391.5	1391.5
10°	1377.0	1377.0	1375.2	1384.2	1384.2
12.5°	1360.8	1362.6	1360.8	1371.6	1371.6
15°	1342.7	1344.5	1346.3	1358.9	1358.9
17.5°	1319.2	1322.8	1326.4	1340.9	1342.7
20°	1297.5	1299.3	1306.5	1322.8	1324.6
22.5°	1268.6	1274.0	1283.0	1299.3	1304.7
25°	1236.1	1243.3	1254.1	1275.8	1279.4
27.5°	1205.3	1210.8	1225.2	1248.7	1255.9
30°	1167.4	1176.4	1194.5	1218.0	1227.0
32.5°	1131.3	1140.3	1162.0	1187.3	1194.5
35°	1086.1	1098.7	1124.0	1152.9	1162.0
37.5°	1042.7	1055.4	1086.1	1118.6	1129.4
40°	997.5	1012.0	1044.5	1082.5	1096.9
42.5°	948.7	968.6	1004.8	1046.3	1062.6
45°	899.9	918.0	963.2	1010.2	1028.2
47.5°	847.5	869.2	918.0	974.0	995.7
50°	791.5	818.6	874.6	936.1	959.6
52.5°	735.5	766.2	829.5	898.1	923.4
55°	681.3	710.2	786.1	860.2	887.3
57.5°	621.6	657.8	740.9	820.4	847.5
60°	560.2	600.0	695.7	778.9	807.8
62.5°	498.8	543.9	652.4	735.5	766.2
65°	437.3	487.9	601.8	690.3	721.0
67.5°	377.7	433.7	554.8	643.3	674.1
70°	309.0	379.5	504.2	590.9	621.6
72.5°	245.8	327.1	455.4	536.7	563.8
75°	189.7	276.5	401.2	475.3	486.1
77.5°	139.1	225.9	345.2	370.5	372.3
80°	94.0	180.7	263.8	260.2	263.8
82.5°	61.4	135.5	166.3	186.1	187.9
85°	36.1	79.5	97.6	108.4	110.2
87.5°	18.1	27.1	34.3	36.1	39.8
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)