

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: P295080

Luminaire Tested: **24CZ2-75HE-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: P295080
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: 24CZ2-75HE-HRP-UNV-L935-CD1-U
Description: 2'x4' TROFFER LED MODULE, HIGH EFFICIENCY ROUND PERF. LENS
Light Source: (392) 3500K CCT, 90 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER
Luminaire Equipment: Sample No. Condition Description

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4973.2 lumens
Efficiency: N/A
Efficacy: 89.8 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

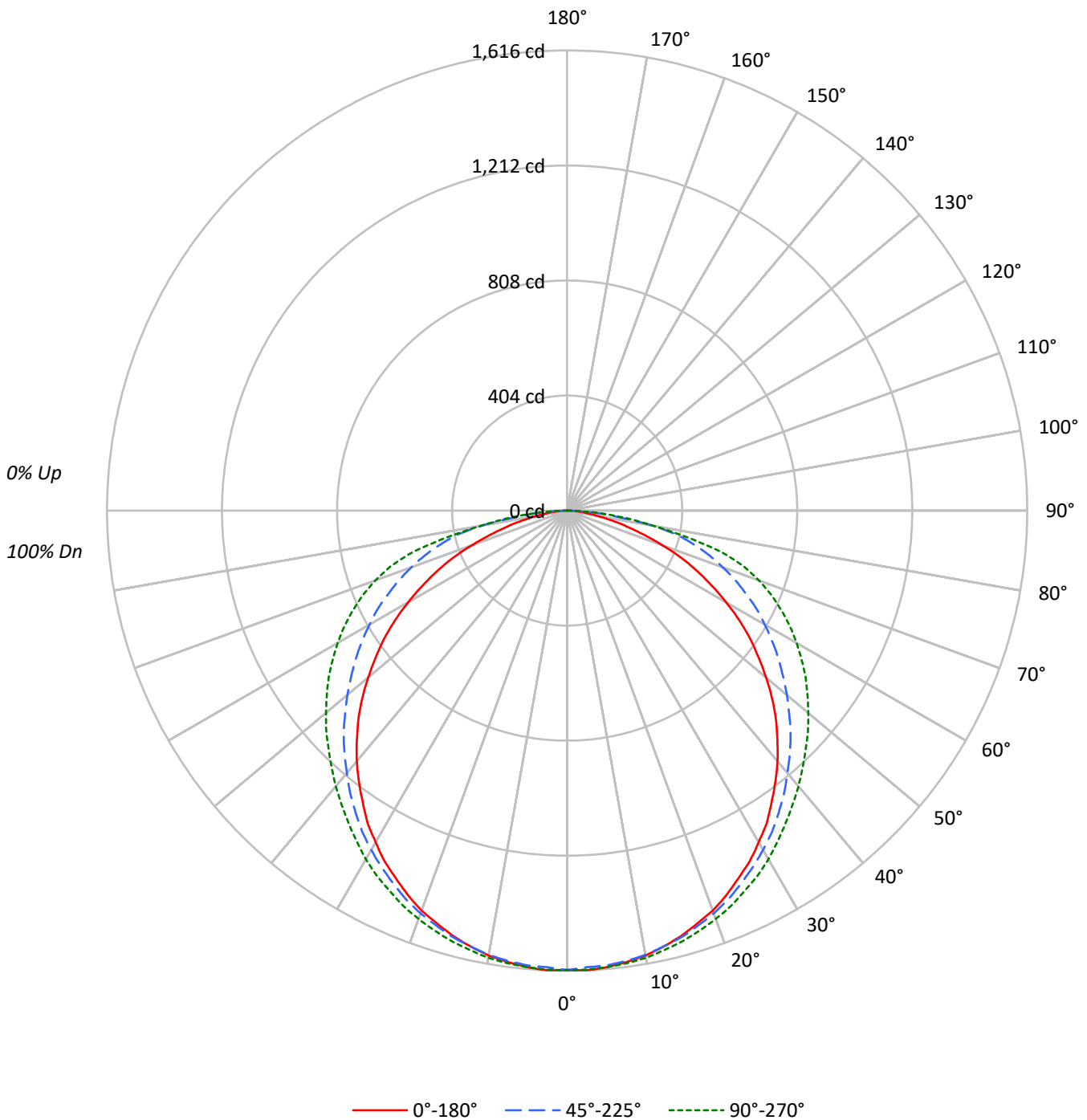
Input Watts (W): 55.4
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	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	80	75	83	78	73	80	75	71	77	73	70	67
3	89	78	69	62	86	76	68	62	73	66	61	70	64	59	68	63	58	56
4	81	68	59	52	79	67	59	52	65	57	51	62	56	50	60	54	50	48
5	74	61	52	45	72	60	51	45	58	50	44	56	49	44	54	48	43	41
6	69	55	46	39	67	54	45	39	52	44	38	50	43	38	49	42	38	36
7	63	50	41	34	62	49	40	34	47	39	34	46	39	34	44	38	33	31
8	59	45	36	30	57	44	36	30	43	36	30	42	35	30	41	34	30	28
9	55	41	33	27	54	41	33	27	40	32	27	39	32	27	38	31	27	25
10	52	38	30	25	50	38	30	25	37	30	25	36	29	24	35	29	24	23

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	2171	2171	2171
5°	2174	2165	2174
10°	2168	2165	2179
15°	2155	2161	2181
20°	2140	2155	2185
25°	2114	2145	2188
30°	2090	2138	2196
35°	2055	2127	2199
40°	2019	2114	2220
45°	1973	2112	2254
50°	1909	2109	2314
55°	1841	2125	2398
60°	1737	2157	2504
65°	1604	2207	2645
70°	1400	2285	2817
75°	1136	2403	2912
80°	839	2356	2356
85°	642	1735	1961



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	152.9	3.1
10°-20°	438.9	8.8
20°-30°	668.2	13.4
30°-40°	811.4	16.3
40°-50°	857.2	17.2
50°-60°	808.9	16.3
60°-70°	672.6	13.5
70°-80°	442.5	8.9
80°-90°	120.6	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°	1260.0	25.3
0°-40°	2071.4	41.7
0°-60°	3737.6	75.2
0°-90°	4973.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4973.2	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1614	1614	1614	1614	1614	
5°	1609	1609	1603	1609	1609	153
15°	1547	1549	1551	1566	1566	436
25°	1424	1432	1445	1470	1474	657
35°	1251	1266	1295	1328	1339	783
45°	1037	1058	1110	1164	1185	798
55°	785	818	906	991	1022	699
65°	504	562	693	795	831	498
75°	219	318	462	548	560	236
85°	42	92	112	125	127	51
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1613.6	1613.6	1613.6	1613.6	1613.6
2.5°	1615.7	1613.6	1605.2	1613.6	1613.6
5°	1609.4	1609.4	1603.2	1609.4	1609.4
7.5°	1599.0	1599.0	1594.8	1603.2	1603.2
10°	1586.5	1586.5	1584.4	1594.8	1594.8
12.5°	1567.8	1569.8	1567.8	1580.3	1580.3
15°	1546.9	1549.0	1551.1	1565.7	1565.7
17.5°	1519.9	1524.0	1528.2	1544.9	1546.9
20°	1494.9	1497.0	1505.3	1524.0	1526.1
22.5°	1461.6	1467.8	1478.2	1497.0	1503.2
25°	1424.1	1432.4	1444.9	1469.9	1474.1
27.5°	1388.7	1395.0	1411.6	1438.7	1447.0
30°	1345.0	1355.4	1376.2	1403.3	1413.7
32.5°	1303.3	1313.8	1338.7	1367.9	1376.2
35°	1251.3	1265.9	1295.0	1328.3	1338.7
37.5°	1201.3	1215.9	1251.3	1288.8	1301.3
40°	1149.3	1165.9	1203.4	1247.1	1263.8
42.5°	1093.1	1116.0	1157.6	1205.5	1224.2
45°	1036.8	1057.7	1109.7	1163.9	1184.7
47.5°	976.5	1001.5	1057.7	1122.2	1147.2
50°	911.9	943.2	1007.7	1078.5	1105.6
52.5°	847.4	882.8	955.6	1034.8	1063.9
55°	784.9	818.2	905.7	991.0	1022.3
57.5°	716.2	757.9	853.6	945.2	976.5
60°	645.4	691.2	801.6	897.4	930.7
62.5°	574.6	626.7	751.6	847.4	882.8
65°	503.8	562.1	693.3	795.3	830.7
67.5°	435.1	499.7	639.2	741.2	776.6
70°	356.0	437.2	580.9	680.8	716.2
72.5°	283.2	376.8	524.7	618.4	649.6
75°	218.6	318.5	462.2	547.6	560.1
77.5°	160.3	260.3	397.7	426.8	428.9
80°	108.3	208.2	304.0	299.8	304.0
82.5°	70.8	156.2	191.5	214.4	216.5
85°	41.6	91.6	112.4	124.9	127.0
87.5°	20.8	31.2	39.6	41.6	45.8
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)