

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: P474533

Luminaire Tested: **24CZ2-35VHE-HRP-UNV-L850-CD1-U**

Issue Date: 01/28/2021

Test Information

Test Method: LM-79-08
Report Number: P474533
Test Lab: INNOVATION CENTER(G3)
Issue Date: 01/28/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 24CZ2-35VHE-HRP-UNV-L850-CD1-U
Description: 2'X4' TROFFER LED MODULE, VERY HIGH EFFICIENCY,SMOOTH LENS W/ HRP
INSERT
Light Source: 5000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2923.9 lumens
Efficiency: N/A
Efficacy: 122.3 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

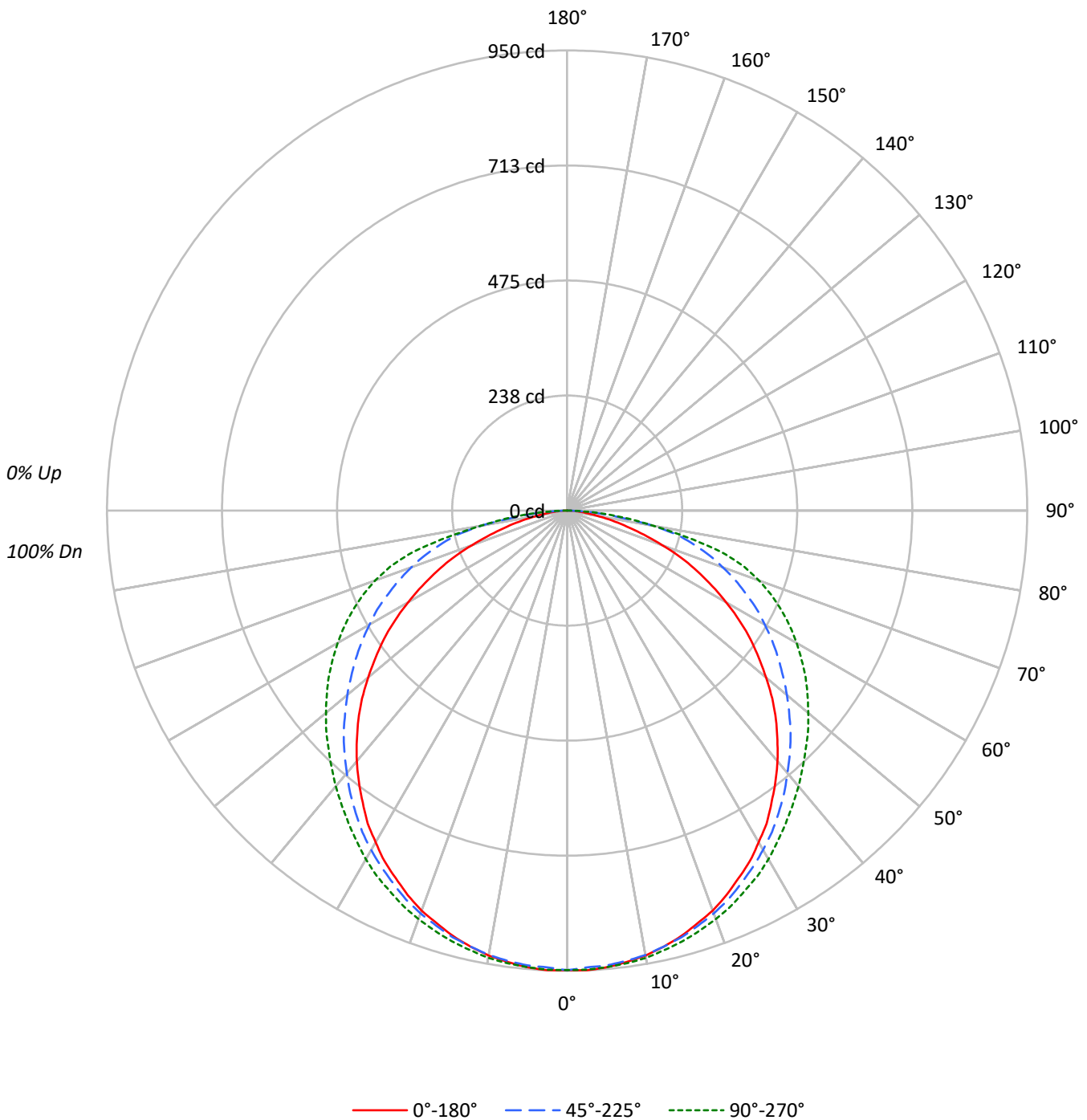
Input Watts (W): 23.9
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	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°	1276	1276	1276
5°	1278	1273	1278
10°	1274	1273	1281
15°	1267	1270	1282
20°	1258	1267	1285
25°	1243	1261	1287
30°	1228	1257	1291
35°	1208	1250	1293
40°	1187	1243	1305
45°	1160	1241	1325
50°	1122	1240	1361
55°	1083	1249	1410
60°	1021	1268	1472
65°	943	1298	1555
70°	823	1343	1657
75°	668	1412	1712
80°	494	1385	1385
85°	378	1020	1152



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	89.9	3.1
10°-20°	258.1	8.8
20°-30°	392.9	13.4
30°-40°	477.0	16.3
40°-50°	504.0	17.2
50°-60°	475.6	16.3
60°-70°	395.4	13.5
70°-80°	260.1	8.9
80°-90°	70.9	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°	740.8	25.3
0°-40°	1217.9	41.7
0°-60°	2197.4	75.2
0°-90°	2923.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2923.9	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	949	949	949	949	949	
5°	946	946	942	946	946	90
15°	910	911	912	920	920	257
25°	837	842	850	864	867	386
35°	736	744	761	781	787	461
45°	610	622	652	684	696	469
55°	462	481	532	583	601	411
65°	296	330	408	468	488	293
75°	128	187	272	322	329	138
85°	24	54	66	74	75	30
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	948.7	948.7	948.7	948.7	948.7
2.5°	949.9	948.7	943.8	948.7	948.7
5°	946.3	946.3	942.5	946.3	946.3
7.5°	940.1	940.1	937.6	942.5	942.5
10°	932.7	932.7	931.6	937.6	937.6
12.5°	921.8	922.9	921.8	929.1	929.1
15°	909.5	910.7	912.0	920.5	920.5
17.5°	893.6	896.0	898.5	908.2	909.5
20°	878.9	880.1	885.0	896.0	897.3
22.5°	859.3	863.0	869.1	880.1	883.8
25°	837.2	842.1	849.5	864.2	866.6
27.5°	816.5	820.1	829.9	845.9	850.8
30°	790.7	796.9	809.1	825.0	831.2
32.5°	766.2	772.4	787.1	804.2	809.1
35°	735.7	744.3	761.3	780.9	787.1
37.5°	706.3	714.9	735.7	757.7	765.1
40°	675.7	685.5	707.6	733.2	743.0
42.5°	642.6	656.1	680.6	708.7	719.8
45°	609.6	621.9	652.4	684.2	696.5
47.5°	574.2	588.9	621.9	659.8	674.5
50°	536.2	554.6	592.5	634.1	650.0
52.5°	498.3	519.0	561.8	608.3	625.5
55°	461.5	481.1	532.4	582.7	601.0
57.5°	421.1	445.6	501.9	555.7	574.2
60°	379.4	406.4	471.3	527.5	547.1
62.5°	337.8	368.5	441.9	498.3	519.0
65°	296.2	330.5	407.7	467.6	488.5
67.5°	255.8	293.7	375.8	435.8	456.6
70°	209.3	257.0	341.5	400.3	421.1
72.5°	166.5	221.6	308.4	363.6	381.9
75°	128.5	187.3	271.7	321.9	329.3
77.5°	94.2	153.0	233.8	250.9	252.1
80°	63.7	122.4	178.8	176.3	178.8
82.5°	41.6	91.8	112.6	126.1	127.3
85°	24.5	53.9	66.1	73.5	74.6
87.5°	12.2	18.3	23.2	24.5	26.9
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)