

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: P272135

Luminaire Tested: **24CZ2-35HE-S-UNV-L940-CD1-U**

Issue Date: 3/3/2020

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: P272135
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: 24CZ2-35HE-S-UNV-L940-CD1-U
Description: 2'x4' TROFFER LED MODULE,SMOOTH LENS, 90CRI
Light Source: (168) 4000K CCT, 90 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER
Luminaire Equipment: Sample No. Condition Description

Summary

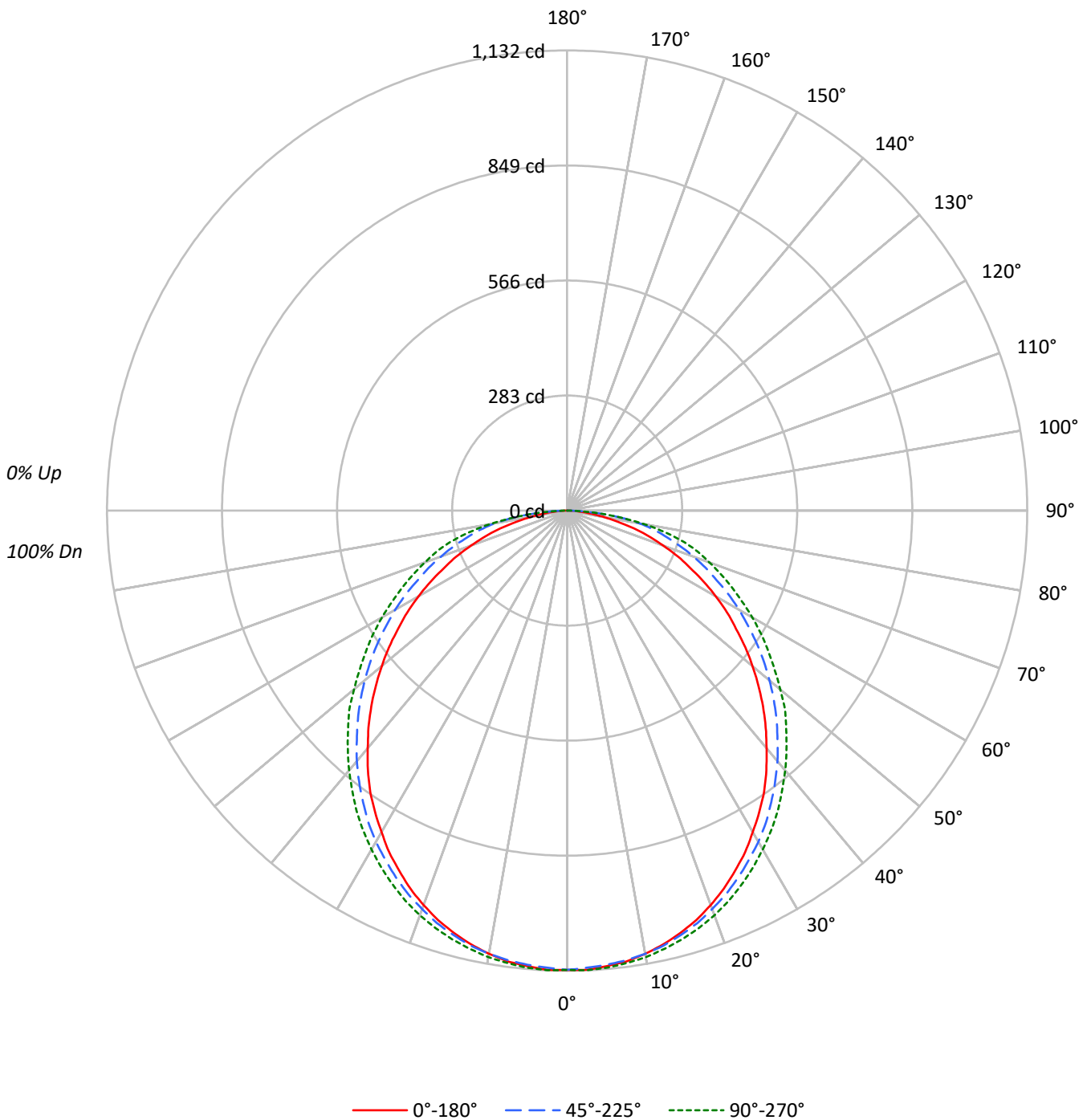
Lumens per Lamp: N/A
Luminaire Lumens: 3216.0 lumens
Efficiency: N/A
Efficacy: 119.6 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.27 / 1.35
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 26.9
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	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					100			
1	108	103	99	95	106	101	97	93	97	93	90	93	90	88	89	87	85	83					83			
2	98	90	83	77	96	88	81	76	84	79	74	81	76	72	78	74	71	69					69			
3	89	79	70	64	87	77	69	63	74	67	62	71	66	61	69	64	60	58					58			
4	82	70	61	54	80	68	60	54	66	59	53	63	57	52	61	56	51	49					49			
5	75	62	53	46	73	61	53	46	59	51	46	57	50	45	55	49	45	42					42			
6	70	56	47	40	68	55	47	40	53	46	40	52	45	40	50	44	39	37					37			
7	64	51	42	36	63	50	42	36	48	41	35	47	40	35	46	39	35	33					33			
8	60	46	38	32	58	46	37	32	44	37	32	43	36	31	42	36	31	29					29			
9	56	43	34	29	55	42	34	29	41	34	28	40	33	28	39	33	28	26					26			
10	53	39	31	26	51	39	31	26	38	31	26	37	30	26	36	30	26	24					24			

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	1520	1520	1520
5°	1519	1515	1525
10°	1513	1513	1524
15°	1498	1506	1521
20°	1479	1493	1517
25°	1451	1479	1507
30°	1419	1462	1495
35°	1388	1438	1483
40°	1340	1414	1466
45°	1297	1386	1450
50°	1247	1360	1433
55°	1191	1335	1418
60°	1135	1314	1416
65°	1063	1291	1424
70°	985	1298	1463
75°	882	1323	1546
80°	712	1401	1512
85°	536	1230	1198



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	107.0	3.3
10°-20°	305.6	9.5
20°-30°	459.4	14.3
30°-40°	547.2	17.0
40°-50°	560.1	17.4
50°-60°	504.2	15.7
60°-70°	396.0	12.3
70°-80°	257.0	8.0
80°-90°	79.5	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°	872.0	27.1
0°-40°	1419.2	44.1
0°-60°	2483.5	77.2
0°-90°	3216.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3216.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1130	1130	1130	1130	1130	
5°	1125	1127	1122	1128	1129	107
15°	1076	1079	1081	1090	1092	303
25°	978	986	996	1012	1015	450
35°	845	855	875	897	903	527
45°	681	698	728	756	762	525
55°	508	530	569	599	605	455
65°	334	360	406	439	447	333
75°	170	202	254	289	297	179
85°	35	64	80	78	78	42
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1129.8	1129.8	1129.8	1129.8	1129.8
2.5°	1130.8	1130.8	1125.7	1130.8	1131.8
5°	1124.7	1126.7	1121.6	1127.8	1128.8
7.5°	1118.6	1118.6	1115.5	1121.6	1122.7
10°	1107.3	1108.3	1107.3	1114.5	1115.5
12.5°	1093.0	1095.1	1096.1	1103.2	1104.3
15°	1075.7	1078.7	1080.8	1090.0	1092.0
17.5°	1056.3	1059.3	1064.4	1074.6	1076.7
20°	1032.8	1036.8	1043.0	1056.3	1059.3
22.5°	1007.2	1011.3	1021.5	1033.8	1038.9
25°	977.6	985.8	996.0	1012.3	1015.4
27.5°	948.0	955.1	968.4	985.8	989.9
30°	913.2	924.5	940.8	958.2	962.3
32.5°	879.5	890.8	910.2	928.6	933.7
35°	844.8	855.0	875.4	896.9	903.0
37.5°	805.0	818.2	840.7	862.2	868.3
40°	763.1	779.4	805.0	827.4	834.6
42.5°	723.2	740.6	766.1	790.7	798.8
45°	681.4	697.7	728.3	755.9	762.1
47.5°	638.5	656.8	689.5	717.1	727.3
50°	595.5	615.0	649.7	678.3	684.4
52.5°	552.6	573.1	609.8	640.5	643.6
55°	507.7	530.2	569.0	598.6	604.7
57.5°	466.8	486.2	528.1	558.8	565.9
60°	421.9	443.3	488.3	516.9	526.1
62.5°	379.0	401.5	448.4	477.1	485.2
65°	334.0	359.6	405.5	439.3	447.4
67.5°	295.2	319.7	368.8	401.5	409.6
70°	250.3	277.9	330.0	363.7	371.8
72.5°	211.5	240.1	292.2	324.8	337.1
75°	169.6	202.3	254.4	289.1	297.3
77.5°	128.7	166.5	219.6	246.2	246.2
80°	91.9	131.8	180.8	193.1	195.1
82.5°	60.3	99.1	133.8	132.8	132.8
85°	34.7	64.4	79.7	77.6	77.6
87.5°	13.3	26.6	28.6	28.6	27.6
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)