

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: P274806

Luminaire Tested: **24CZ2-45-RDP-UNV-L950-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: P274806  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1808-918-19)  
Test Lab: INNOVATION CENTER(G3)  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: METALUX  
Catalog Number: 24CZ2-45-RDP-UNV-L950-CD1-U  
Description: 2'x4' TROFFER LED MODULE,SMOOTH LENS WITH INSERT, 90CRI  
Light Source: (84) 5000K CCT, 90 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER  
Luminaire Equipment: Sample No.   Condition   Description

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 2816.0 lumens  
Efficiency: N/A  
Efficacy: 65.6 lumens/watt  
Spacing Criteria (0/90/45): 1.26 / 1.3 / 1.41  
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')  
CIE Type: Direct

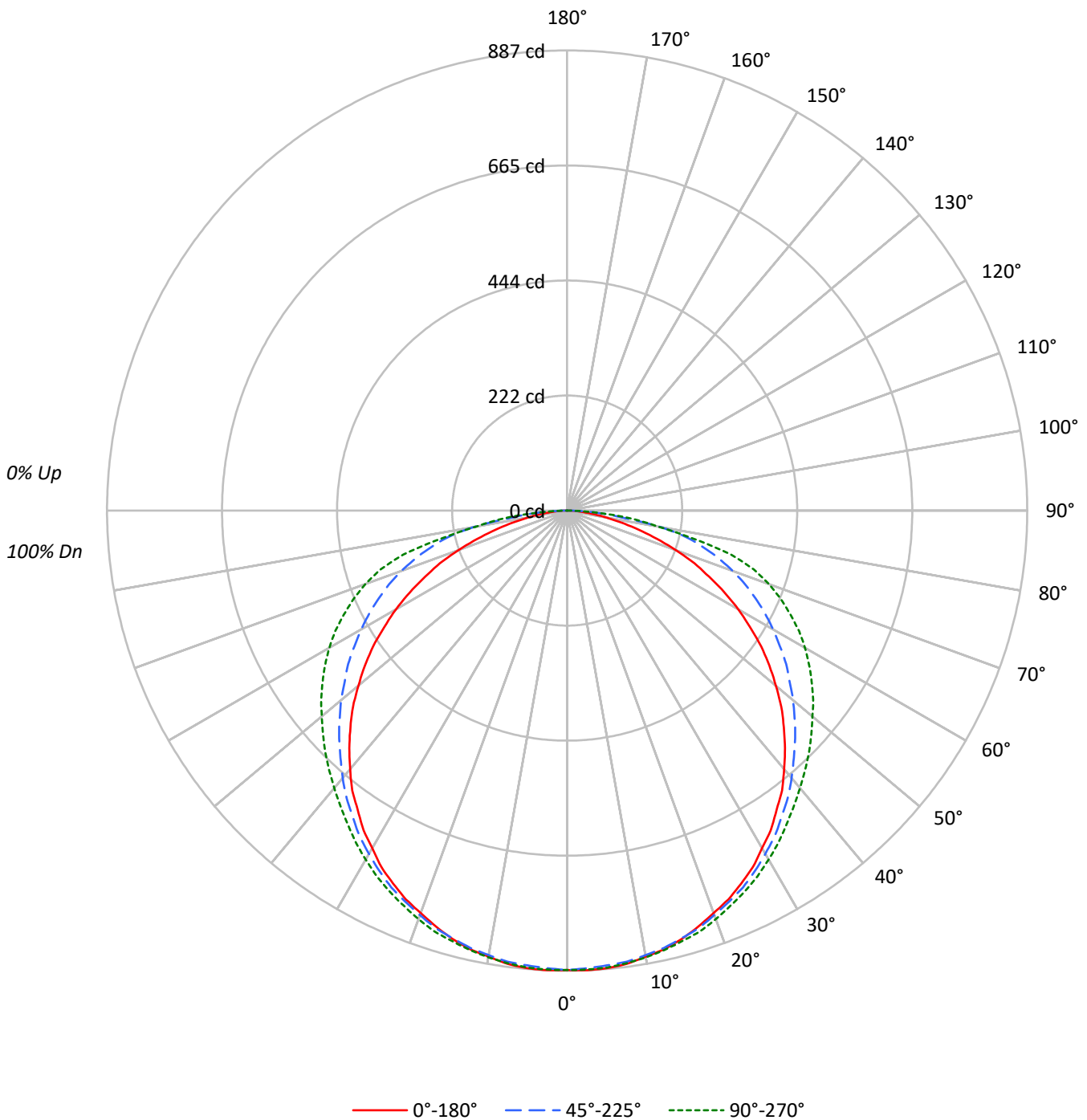
Input Watts (W): 42.9  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	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	100	96	92	96	93	89		92	89	87		88	86	84	82
2	97	89	81	75	95	87	80	74	83	77	72		80	75	71		77	73	69	67
3	88	77	68	62	86	76	67	61	72	66	60		70	64	59		67	62	58	56
4	81	68	59	52	78	67	58	51	64	57	51		62	55	50		59	54	49	47
5	74	60	51	44	72	59	51	44	57	49	43		55	48	43		53	47	42	40
6	68	54	45	38	66	53	45	38	51	44	38		50	43	37		48	42	37	35
7	63	49	40	34	61	48	40	34	47	39	33		45	38	33		44	38	33	31
8	59	45	36	30	57	44	36	30	43	35	30		41	34	29		40	34	29	27
9	55	41	33	27	53	40	32	27	39	32	27		38	31	26		37	31	26	24
10	51	38	30	24	50	37	29	24	36	29	24		35	29	24		34	28	24	22

**AVERAGE LUMINANCE (cd/sqm):**

	0°	45°	90°
0°	1192	1192	1192
5°	1196	1189	1194
10°	1193	1189	1195
15°	1191	1189	1197
20°	1182	1188	1200
25°	1178	1190	1203
30°	1168	1187	1207
35°	1156	1184	1211
40°	1143	1182	1227
45°	1124	1183	1255
50°	1099	1190	1292
55°	1071	1209	1350
60°	1026	1233	1425
65°	961	1276	1512
70°	874	1335	1626
75°	741	1409	1699
80°	584	1418	1375
85°	431	1078	1207



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	84.0	3.0
10°-20°	241.8	8.6
20°-30°	369.7	13.1
30°-40°	452.0	16.0
40°-50°	481.7	17.1
50°-60°	460.6	16.4
60°-70°	390.1	13.9
70°-80°	262.2	9.3
80°-90°	74.0	2.6
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°	695.5	24.7
0°-40°	1147.4	40.7
0°-60°	2089.7	74.2
0°-90°	2816.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2816.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	886	886	886	886	886	
5°	886	884	880	884	884	84
15°	855	855	853	860	859	241
25°	793	796	802	809	810	366
35°	704	710	721	735	738	441
45°	591	601	622	648	659	456
55°	457	474	515	556	576	407
65°	302	332	401	454	475	300
75°	142	194	271	317	327	153
85°	28	57	70	75	78	35
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	885.6	885.6	885.6	885.6	885.6
2.5°	886.9	886.9	882.8	885.6	885.6
5°	885.6	884.2	880.0	884.2	884.2
7.5°	881.4	880.0	877.2	881.4	880.0
10°	873.0	873.0	870.2	874.4	874.4
12.5°	866.0	864.6	863.2	868.8	867.4
15°	854.8	854.8	853.4	860.4	859.0
17.5°	840.9	842.3	843.6	849.2	850.6
20°	825.5	828.3	829.7	838.1	838.1
22.5°	811.5	812.9	815.7	824.1	824.1
25°	793.4	796.2	801.7	808.7	810.1
27.5°	775.2	776.6	783.6	793.4	794.8
30°	751.5	755.7	764.0	775.2	776.6
32.5°	730.5	734.7	744.5	755.7	758.4
35°	704.0	709.6	720.7	734.7	737.5
37.5°	680.2	684.4	698.4	713.7	717.9
40°	650.9	659.3	673.2	691.4	698.4
42.5°	621.6	629.9	646.7	670.4	678.8
45°	590.8	600.6	621.6	648.1	659.3
47.5°	560.1	571.3	595.0	625.8	638.3
50°	525.2	539.2	568.5	603.4	617.4
52.5°	491.7	508.4	540.5	579.7	597.8
55°	456.7	473.5	515.4	555.9	575.5
57.5°	417.6	440.0	486.1	532.2	553.1
60°	381.3	402.3	458.1	508.4	529.4
62.5°	342.2	370.1	430.2	483.3	504.2
65°	301.7	332.4	400.9	453.9	474.9
67.5°	265.4	298.9	371.5	424.6	445.6
70°	222.1	264.0	339.4	392.5	413.4
72.5°	181.6	227.7	305.9	357.6	377.1
75°	142.5	194.2	271.0	317.1	326.8
77.5°	106.2	160.6	234.7	254.2	247.2
80°	75.4	128.5	183.0	173.2	177.4
82.5°	48.9	97.8	113.1	128.5	132.7
85°	27.9	57.3	69.8	75.4	78.2
87.5°	12.6	21.0	27.9	27.9	26.5
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)