

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: P293041

Luminaire Tested: **24GR-LD5-34-F1-UNV-L93050-W2A1-U-3500K**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P293041
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1901-084-12)
Test Lab: INNOVATION CENTER(G3)
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 24GR-LD5-34-F1-UNV-L93050-W2A1-U-3500K
Description: GRLED 2x4 TUNABLE WHITE TROFFER
WITH F1 LENS
Light Source: (336) 90 CRI LEDS TUNED TO 3500K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2967.0 lumens
Efficiency: N/A
Efficacy: 126.8 lumens/watt
Spacing Criteria (0/90/45): 1.18 / 1.18 / 1.25
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

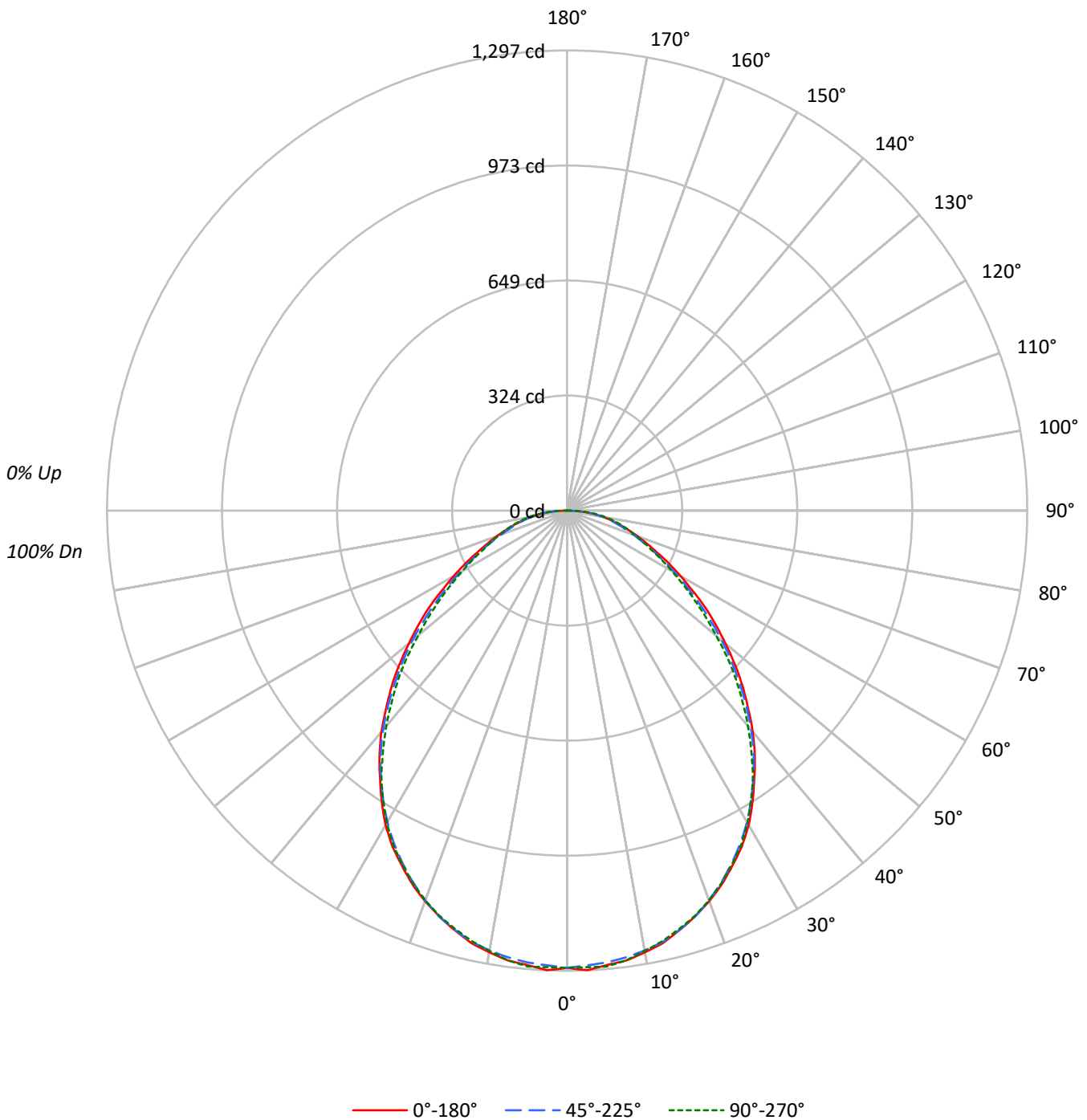
Input Watts (W): 23.407449
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	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	109	105	101	97	107	103	99	96	98	95	93	95	92	90	91	89	87	85					85			
2	100	93	86	81	98	91	85	80	87	82	78	84	80	76	81	78	75	72					72			
3	92	82	74	68	90	81	73	68	78	72	67	75	70	65	72	68	64	62					62			
4	85	73	65	59	83	72	64	58	70	63	58	67	62	57	65	60	56	54					54			
5	78	66	58	51	76	65	57	51	63	56	50	61	55	50	59	54	49	47					47			
6	73	60	51	45	71	59	51	45	57	50	45	56	49	44	54	48	44	42					42			
7	68	55	46	40	66	54	46	40	52	45	40	51	44	40	50	44	39	37					37			
8	63	50	42	36	62	49	42	36	48	41	36	47	40	36	46	40	36	34					34			
9	59	46	38	33	58	46	38	33	44	38	33	43	37	32	42	37	32	31					31			
10	56	43	35	30	54	42	35	30	41	34	30	40	34	30	39	34	30	28					28			

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	1734	1734	1734
5°	1737	1727	1742
10°	1727	1720	1721
15°	1706	1704	1700
20°	1677	1674	1674
25°	1638	1629	1633
30°	1591	1574	1579
35°	1511	1504	1500
40°	1431	1418	1393
45°	1330	1306	1281
50°	1218	1191	1146
55°	1113	1062	1027
60°	991	944	919
65°	892	846	834
70°	828	778	809
75°	792	757	821
80°	792	792	877
85°	821	832	926



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	121.7	4.1
10°-20°	344.4	11.6
20°-30°	505.5	17.0
30°-40°	571.5	19.3
40°-50°	528.2	17.8
50°-60°	407.0	13.7
60°-70°	269.5	9.1
70°-80°	160.4	5.4
80°-90°	58.8	2.0
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°	971.7	32.7
0°-40°	1543.2	52.0
0°-60°	2478.3	83.5
0°-90°	2967.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2967.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1289	1289	1289	1289	1289	
5°	1286	1286	1278	1279	1289	122
15°	1224	1222	1223	1223	1220	345
25°	1103	1100	1097	1096	1100	508
35°	920	919	916	911	913	576
45°	699	694	687	674	673	538
55°	474	464	453	441	438	423
65°	280	276	266	263	262	281
75°	152	149	146	152	158	162
85°	53	50	54	59	60	57
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1288.8	1288.8	1288.8	1288.8	1288.8
2.5°	1296.7	1290.0	1282.7	1282.7	1288.2
5°	1285.7	1285.7	1278.4	1279.0	1289.4
7.5°	1279.0	1275.3	1270.4	1270.4	1278.4
10°	1264.3	1261.3	1258.8	1257.6	1260.0
12.5°	1248.4	1243.5	1245.3	1243.5	1242.9
15°	1224.5	1222.1	1223.3	1222.7	1220.3
17.5°	1198.8	1197.6	1200.1	1195.8	1197.6
20°	1171.3	1167.6	1168.8	1166.4	1168.8
22.5°	1140.1	1137.6	1134.6	1131.5	1136.4
25°	1103.4	1100.3	1097.2	1096.0	1099.7
27.5°	1066.7	1061.8	1057.5	1056.2	1061.8
30°	1023.8	1018.3	1013.4	1012.2	1016.5
32.5°	973.0	971.8	965.7	963.2	965.1
35°	919.8	918.6	915.5	911.2	913.0
37.5°	869.0	868.4	864.1	856.7	851.9
40°	814.5	810.2	807.2	796.8	793.1
42.5°	754.6	753.3	747.8	736.2	731.9
45°	698.9	694.0	686.6	674.4	673.2
47.5°	641.3	634.6	627.9	612.6	612.0
50°	582.0	577.1	569.1	553.8	547.7
52.5°	526.9	520.2	509.2	494.5	491.4
55°	474.3	464.5	452.9	440.6	437.6
57.5°	418.0	413.7	399.6	389.8	386.1
60°	368.4	364.7	350.7	341.5	341.5
62.5°	323.7	318.2	306.0	299.9	299.9
65°	280.3	276.0	265.6	263.1	261.9
67.5°	242.9	237.4	230.1	229.5	232.5
70°	210.5	203.8	197.7	203.8	205.6
72.5°	179.9	175.6	170.1	178.1	181.8
75°	152.4	148.7	145.6	152.4	157.9
77.5°	127.3	123.6	123.6	131.0	135.9
80°	102.2	99.7	102.2	108.3	113.2
82.5°	78.3	76.5	79.6	85.7	88.7
85°	53.2	50.2	53.9	59.4	60.0
87.5°	25.1	24.5	26.9	30.6	30.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)