

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: P294053

Luminaire Tested: **24GR-LD5-38-A19/156-UNV-L93050-W2A1-U-3000K**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P294053
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P33308)
Test Lab: INNOVATION CENTER-P3
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 24GR-LD5-38-A19/156-UNV-L93050-W2A1-U-3000K
Description: GRLED 2x4 TUNABLE WHITE TROFFER
WITH A19/156 LENS
Light Source: (336) 90 CRI LEDS TUNED TO 3000K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2914.0 lumens
Efficiency: N/A
Efficacy: 112.2 lumens/watt
Spacing Criteria (0/90/45): 1.25 / 1.27 / 1.25
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

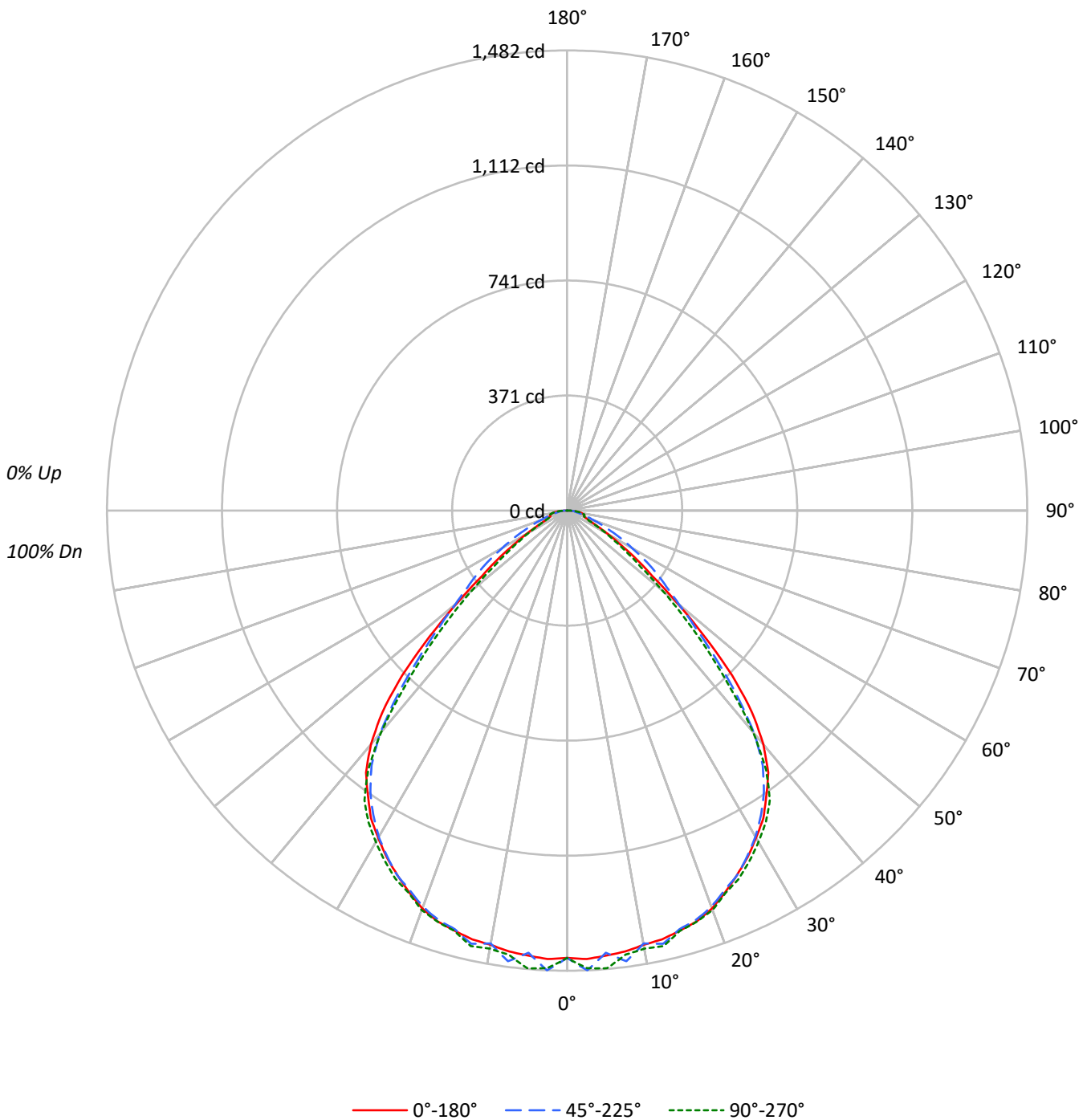
Input Watts (W): 25.972947
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	111	107	103	100	108	105	102	99	101	98	96	97	95	93	93	92	90	88					88			
2	103	96	90	86	100	94	89	85	91	86	83	88	84	81	85	82	79	77					77			
3	95	86	79	74	93	85	78	73	82	77	72	79	75	71	77	73	70	68					68			
4	88	78	71	65	86	77	70	64	74	68	64	72	67	63	70	66	62	60					60			
5	82	71	63	57	80	70	62	57	68	61	56	66	60	56	64	59	55	53					53			
6	76	65	57	51	75	64	56	51	62	55	50	60	55	50	59	54	50	48					48			
7	71	59	51	46	70	58	51	46	57	50	45	56	50	45	54	49	45	43					43			
8	67	55	47	42	65	54	47	41	53	46	41	51	45	41	50	45	41	39					39			
9	63	50	43	38	61	50	43	38	49	42	38	48	42	37	47	41	37	36					36			
10	59	47	39	35	58	46	39	35	45	39	34	44	38	34	44	38	34	33					33			

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	1939	1939	1939
5°	1943	1930	1999
10°	1940	1934	1958
15°	1951	1945	1952
20°	1953	1945	1961
25°	1922	1924	1943
30°	1890	1885	1915
35°	1837	1815	1869
40°	1725	1648	1639
45°	1430	1294	1227
50°	962	982	839
55°	635	823	550
60°	407	650	376
65°	262	496	255
70°	232	355	232
75°	299	282	302
80°	366	243	384
85°	426	361	448



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	138.0	4.7
10°-20°	396.1	13.6
20°-30°	596.4	20.5
30°-40°	691.2	23.7
40°-50°	540.0	18.5
50°-60°	288.3	9.9
60°-70°	148.3	5.1
70°-80°	83.9	2.9
80°-90°	31.8	1.1
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°	1130.5	38.8
0°-40°	1821.7	62.5
0°-60°	2650.0	90.9
0°-90°	2914.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2914.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1441	1441	1441	1441	1441	
5°	1438	1479	1429	1468	1480	137
15°	1401	1410	1396	1405	1402	396
25°	1295	1291	1296	1294	1308	597
35°	1118	1113	1105	1127	1138	697
45°	752	752	680	674	645	566
55°	270	342	351	316	234	250
65°	82	172	156	171	80	91
75°	58	108	54	101	58	58
85°	28	36	23	36	29	28
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1440.9	1440.9	1440.9	1440.9	1440.9
2.5°	1445.6	1471.8	1482.1	1469.4	1475.1
5°	1438.5	1478.8	1429.2	1468.5	1479.7
7.5°	1432.0	1427.8	1463.8	1426.4	1442.3
10°	1419.8	1422.6	1415.6	1442.3	1432.9
12.5°	1414.2	1430.6	1429.2	1415.6	1436.2
15°	1400.6	1409.5	1396.0	1404.9	1401.6
17.5°	1387.1	1382.9	1381.5	1385.2	1388.5
20°	1363.7	1349.6	1358.1	1359.0	1369.3
22.5°	1330.0	1321.6	1323.4	1331.9	1332.8
25°	1294.9	1290.7	1295.8	1293.9	1308.5
27.5°	1258.4	1252.8	1256.0	1263.1	1272.0
30°	1216.7	1215.3	1213.0	1219.1	1232.6
32.5°	1175.5	1164.3	1162.4	1175.1	1190.5
35°	1118.5	1113.3	1104.9	1126.9	1138.1
37.5°	1064.2	1048.3	1034.7	1047.8	1052.5
40°	982.3	970.1	938.3	939.7	933.1
42.5°	881.7	872.8	811.9	801.2	782.9
45°	751.6	752.0	680.0	673.9	644.9
47.5°	600.4	627.1	564.4	557.4	514.3
50°	459.5	507.8	468.9	457.7	400.6
52.5°	344.9	415.6	403.4	379.1	300.4
55°	270.5	342.1	351.0	316.3	234.5
57.5°	203.6	281.7	296.2	267.7	181.1
60°	151.2	237.3	241.5	230.2	139.9
62.5°	112.3	201.7	196.1	197.5	103.9
65°	82.4	171.7	155.8	171.3	80.0
67.5°	67.4	148.8	121.2	148.3	65.0
70°	59.0	132.0	90.3	130.6	59.0
72.5°	57.1	121.2	71.6	116.1	57.6
75°	57.6	108.1	54.3	101.1	58.0
77.5°	52.9	88.9	41.2	86.1	55.2
80°	47.3	67.4	31.4	68.3	49.6
82.5°	40.2	49.1	25.3	50.5	41.6
85°	27.6	36.0	23.4	36.0	29.0
87.5°	13.1	21.5	14.5	20.6	15.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)