

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: P294049

Luminaire Tested: **24GR-LD5-34-A19/156-UNV-L93050-W2A1-U-3500K**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P294049
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-LD5-34-A19/156-UNV-L93050-W2A1-U-3500K
Description: GRLED 2x4 TUNABLE WHITE TROFFER
WITH A19/156 LENS
Light Source: (336) 90 CRI LEDS TUNED TO 3500K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2888.0 lumens
Efficiency: N/A
Efficacy: 123.4 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

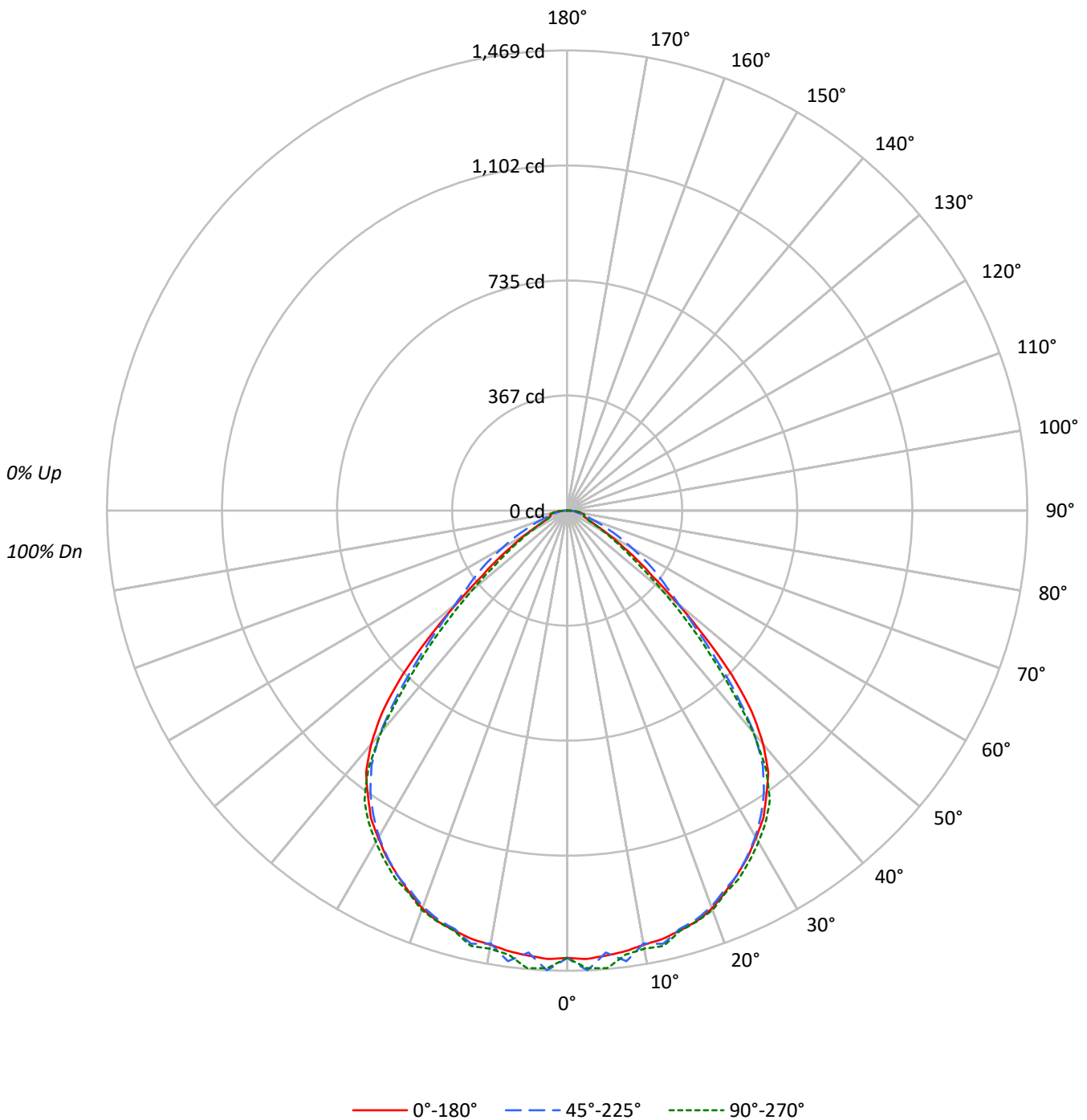
Input Watts (W): 23.407449
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	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°	1921	1921	1921
5°	1926	1913	1981
10°	1923	1917	1940
15°	1934	1927	1935
20°	1935	1927	1943
25°	1905	1907	1925
30°	1874	1868	1898
35°	1821	1799	1853
40°	1710	1633	1624
45°	1417	1282	1216
50°	953	973	831
55°	629	816	545
60°	403	644	373
65°	260	492	252
70°	230	352	230
75°	296	280	299
80°	363	241	381
85°	423	358	445



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	136.7	4.7
10°-20°	392.6	13.6
20°-30°	591.1	20.5
30°-40°	685.1	23.7
40°-50°	535.2	18.5
50°-60°	285.8	9.9
60°-70°	146.9	5.1
70°-80°	83.1	2.9
80°-90°	31.6	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°	1120.4	38.8
0°-40°	1805.5	62.5
0°-60°	2626.4	90.9
0°-90°	2888.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2888.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1428	1428	1428	1428	1428	
5°	1426	1466	1416	1455	1466	136
15°	1388	1397	1384	1392	1389	392
25°	1283	1279	1284	1282	1297	591
35°	1108	1103	1095	1117	1128	691
45°	745	745	674	668	639	561
55°	268	339	348	314	232	247
65°	82	170	154	170	79	90
75°	57	107	54	100	58	58
85°	27	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°	1428.0	1428.0	1428.0	1428.0	1428.0
2.5°	1432.7	1458.6	1468.8	1456.3	1461.9
5°	1425.7	1465.6	1416.4	1455.4	1466.5
7.5°	1419.2	1415.0	1450.8	1413.7	1429.4
10°	1407.2	1409.9	1403.0	1429.4	1420.1
12.5°	1401.6	1417.8	1416.4	1403.0	1423.4
15°	1388.1	1397.0	1383.5	1392.3	1389.1
17.5°	1374.7	1370.5	1369.1	1372.8	1376.1
20°	1351.5	1337.6	1345.9	1346.9	1357.1
22.5°	1318.1	1309.8	1311.6	1320.0	1320.9
25°	1283.3	1279.2	1284.3	1282.4	1296.8
27.5°	1247.2	1241.6	1244.8	1251.8	1260.6
30°	1205.9	1204.5	1202.2	1208.2	1221.6
32.5°	1165.1	1153.9	1152.1	1164.6	1179.9
35°	1108.5	1103.4	1095.0	1116.8	1128.0
37.5°	1054.7	1038.9	1025.5	1038.4	1043.1
40°	973.5	961.5	929.9	931.3	924.8
42.5°	873.8	865.0	804.7	794.0	775.9
45°	744.9	745.3	673.9	667.9	639.1
47.5°	595.1	621.5	559.3	552.4	509.7
50°	455.4	503.2	464.7	453.6	397.0
52.5°	341.8	411.9	399.8	375.7	297.8
55°	268.1	339.0	347.8	313.5	232.4
57.5°	201.8	279.2	293.6	265.3	179.5
60°	149.8	235.1	239.3	228.2	138.7
62.5°	111.3	199.9	194.3	195.7	103.0
65°	81.6	170.2	154.4	169.7	79.3
67.5°	66.8	147.5	120.1	147.0	64.5
70°	58.4	130.8	89.5	129.4	58.4
72.5°	56.6	120.1	71.0	115.0	57.0
75°	57.0	107.1	53.8	100.2	57.5
77.5°	52.4	88.1	40.8	85.3	54.7
80°	46.8	66.8	31.1	67.7	49.2
82.5°	39.9	48.7	25.0	50.1	41.3
85°	27.4	35.7	23.2	35.7	28.8
87.5°	13.0	21.3	14.4	20.4	14.8
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)