

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: NEO-RAY

Report Number: P231686

Luminaire Tested: **S123-DR-2-40-X-0048-1-U-DD-1-W**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P231686
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P29683)
Test Lab: INNOVATION CENTER-P2
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: NEO-RAY
Catalog Number: S123-DR-2-40-X-0048-1-U-DD-1-W
Description: DEFINE 3 LED LINEAR DIRECT RECESSED LED LUMINAIRE WITH FLUSH LENS.
Light Source: 4000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4187.1 lumens
Efficiency: N/A
Efficacy: 98.3 lumens/watt
Spacing Criteria (0/90/45): 1.21 / 1.18 / 1.31
Luminous Opening: Rectangular (W 0.22' x L: 3.92' x H: 0')
CIE Type: Direct

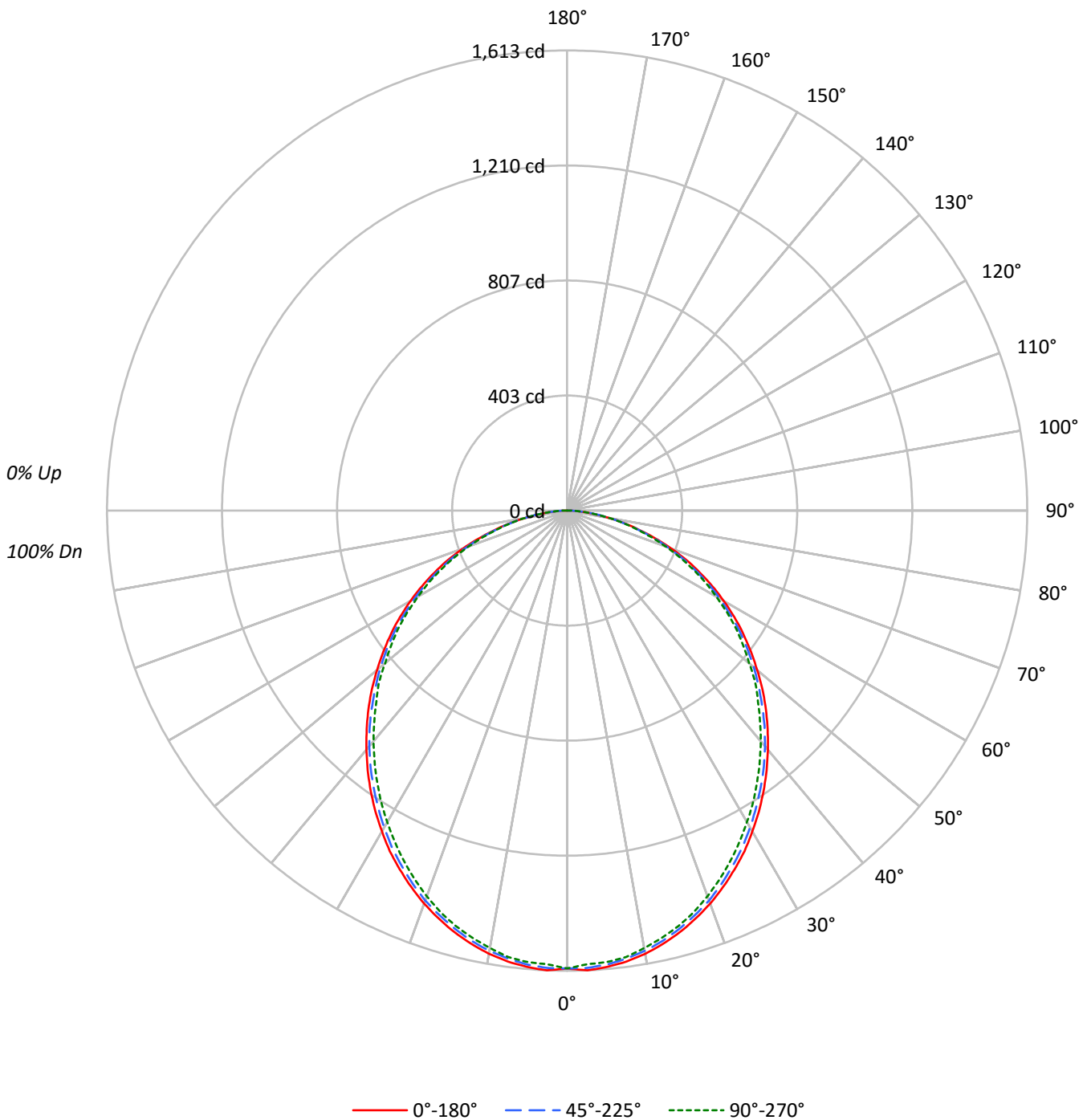
Input Watts (W): 42.6
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	0
RCR																		
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100
1	109	104	100	96	106	102	98	95	98	95	92	94	91	89	90	88	86	84
2	99	91	84	79	97	89	83	78	86	80	76	82	78	74	79	76	73	70
3	91	80	72	66	88	79	71	65	76	69	64	73	67	63	70	66	62	59
4	83	71	62	56	81	70	62	55	67	60	55	65	59	54	63	57	53	51
5	76	64	55	48	74	63	54	48	60	53	47	58	52	47	57	51	46	44
6	71	57	49	42	69	56	48	42	55	47	42	53	46	41	51	45	41	39
7	66	52	43	37	64	51	43	37	50	42	37	48	42	37	47	41	36	34
8	61	48	39	33	59	47	39	33	46	38	33	44	38	33	43	37	33	31
9	57	44	36	30	56	43	35	30	42	35	30	41	34	30	40	34	30	28
10	54	40	33	27	52	40	32	27	39	32	27	38	32	27	37	31	27	25

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	19748	19748	19748
5°	19841	19733	19627
10°	19709	19583	19457
15°	19488	19340	19211
20°	19199	19048	18840
25°	18847	18652	18396
30°	18452	18226	17917
35°	18032	17771	17446
40°	17587	17334	16961
45°	17144	16817	16465
50°	16646	16344	15955
55°	16176	15835	15526
60°	15606	15214	14825
65°	14931	14468	14173
70°	13980	13512	13199
75°	12501	12226	11950
80°	10645	10645	10645
85°	8571	8967	8967



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	151.2	3.6
10°-20°	426.9	10.2
20°-30°	630.3	15.1
30°-40°	737.2	17.6
40°-50°	743.9	17.8
50°-60°	658.2	15.7
60°-70°	492.5	11.8
70°-80°	273.5	6.5
80°-90°	73.5	1.8
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°	1208.4	28.9
0°-40°	1945.6	46.5
0°-60°	3347.6	80.0
0°-90°	4187.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4187.1	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1605	1605	1605	1605	1605	
5°	1606	1590	1597	1592	1589	152
15°	1530	1512	1518	1512	1508	431
25°	1388	1371	1374	1359	1355	639
35°	1200	1184	1183	1166	1161	751
45°	985	972	966	950	946	760
55°	754	747	738	724	724	674
65°	513	506	497	490	487	507
75°	263	260	257	253	251	280
85°	61	64	64	62	64	72
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1604.6	1604.6	1604.6	1604.6	1604.6
2.5°	1613.2	1595.9	1604.6	1600.2	1591.6
5°	1606.0	1590.1	1597.3	1591.6	1588.7
7.5°	1594.5	1577.1	1584.3	1578.6	1578.6
10°	1577.1	1559.8	1567.0	1559.8	1556.9
12.5°	1555.5	1538.1	1545.4	1536.7	1533.8
15°	1529.5	1512.1	1517.9	1512.1	1507.8
17.5°	1499.1	1483.2	1487.6	1480.4	1476.0
20°	1465.9	1448.6	1454.4	1442.8	1438.5
22.5°	1428.4	1411.0	1415.4	1400.9	1398.0
25°	1387.9	1370.6	1373.5	1359.0	1354.7
27.5°	1346.0	1327.3	1330.2	1314.3	1308.5
30°	1298.4	1281.1	1282.5	1266.6	1260.8
32.5°	1250.7	1233.4	1233.4	1216.1	1213.2
35°	1200.2	1184.3	1182.8	1165.5	1161.2
37.5°	1148.2	1133.7	1132.3	1113.5	1109.2
40°	1094.7	1081.7	1078.9	1060.1	1055.7
42.5°	1039.9	1026.9	1024.0	1005.2	1000.9
45°	985.0	972.0	966.2	950.3	946.0
47.5°	928.7	918.5	909.9	895.4	895.4
50°	869.4	860.8	853.6	839.1	833.3
52.5°	811.7	804.4	795.8	782.8	778.5
55°	753.9	746.7	738.0	723.6	723.6
57.5°	694.7	686.0	677.4	667.2	664.4
60°	634.0	626.8	618.1	608.0	602.3
62.5°	573.4	567.6	558.9	550.3	547.4
65°	512.7	505.5	496.8	489.6	486.7
67.5°	452.1	443.4	436.2	428.9	427.5
70°	388.5	381.3	375.5	366.8	366.8
72.5°	323.5	317.7	314.8	310.5	309.1
75°	262.9	260.0	257.1	252.7	251.3
77.5°	205.1	205.1	202.2	200.8	200.8
80°	150.2	153.1	150.2	150.2	150.2
82.5°	101.1	102.5	104.0	104.0	102.5
85°	60.7	63.5	63.5	62.1	63.5
87.5°	28.9	28.9	28.9	28.9	28.9
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)