

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: P231746

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

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P231746
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P33914)
Test Lab: INNOVATION CENTER-P3
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: NEO-RAY
Catalog Number: S123-RDR-2-40-X-0048-1-U-DD-1-W
Description: DEFINE 3 LED LINEAR REGRESSED 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: 3691.8 lumens
Efficiency: N/A
Efficacy: 86.7 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.07 / 1.23
Luminous Opening: Rectangular (W 0.22' x L: 3.92' x H: 0')
CIE Type: Direct

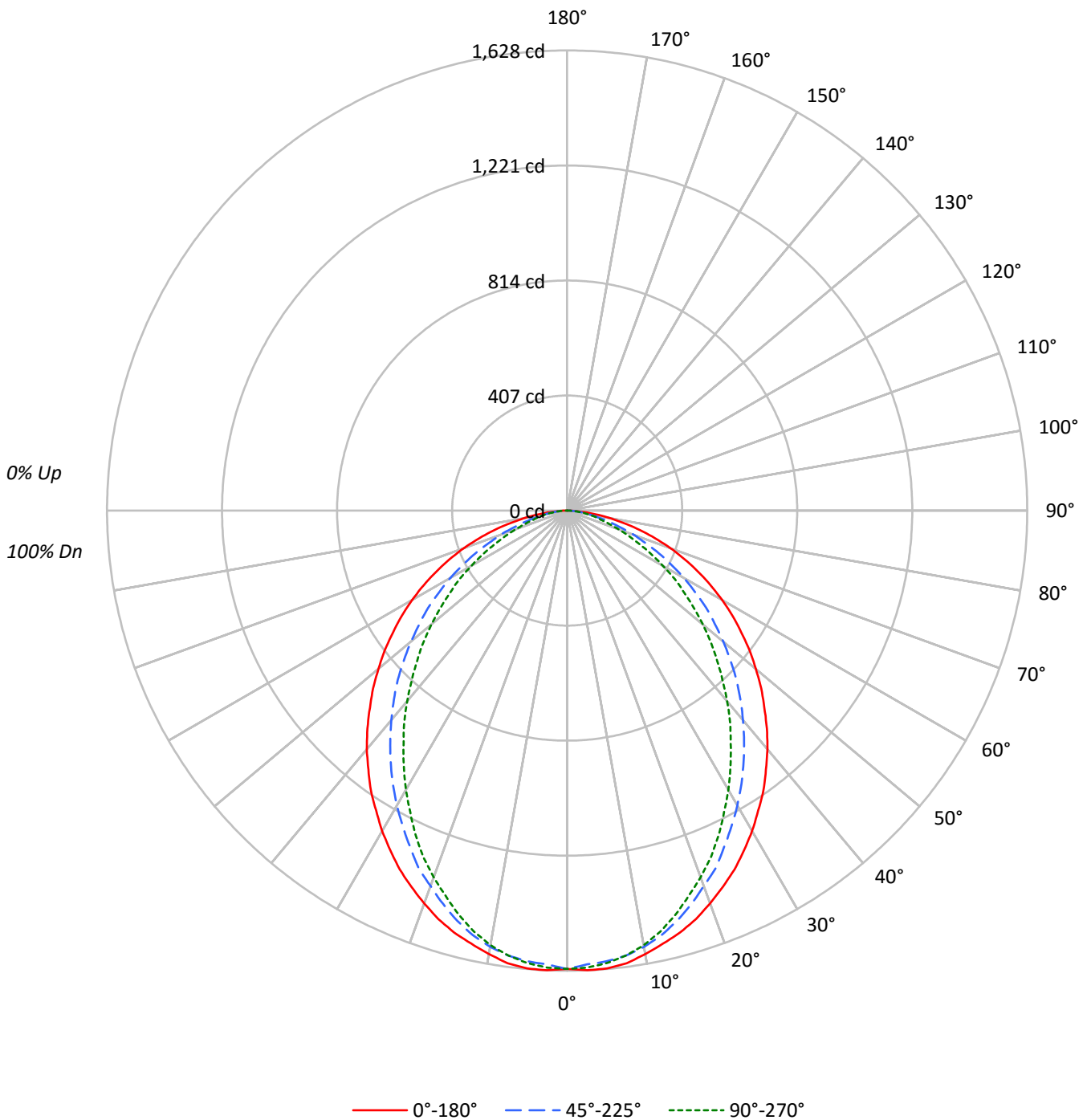
Input Watts (W): 42.6
Input Voltage (V): 120
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	110	105	101	98	107	103	99	96	99	96	93	95	93	90	91	89	88	86					86			
2	100	93	86	81	98	91	85	80	87	82	78	84	80	76	81	78	75	73					73			
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	82	72	64	58	70	63	57	67	61	57	65	60	56	54					54			
5	78	66	57	51	76	65	57	51	63	56	50	61	55	50	59	54	49	47					47			
6	72	60	51	45	71	59	51	45	57	50	44	55	49	44	54	48	44	42					42			
7	67	54	46	40	66	54	46	40	52	45	40	51	44	39	49	43	39	37					37			
8	63	50	42	36	61	49	41	36	48	41	36	47	40	35	45	40	35	33					33			
9	59	46	38	33	57	45	38	32	44	37	32	43	37	32	42	36	32	30					30			
10	55	42	35	30	54	42	35	30	41	34	29	40	34	29	39	33	29	28					28			

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	19956	19956	19956
5°	20091	19777	19856
10°	19907	19589	19510
15°	19689	19144	18861
20°	19367	18514	18078
25°	19024	17839	17215
30°	18601	17113	16211
35°	18187	16353	15160
40°	17716	15549	14146
45°	17175	14746	13061
50°	16677	13791	11999
55°	16136	12902	10825
60°	15581	11756	9646
65°	14878	10443	8270
70°	13987	9021	6967
75°	12672	7242	5811
80°	10908	5847	5401
85°	8515	4928	4702



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	152.7	4.1
10°-20°	425.2	11.5
20°-30°	610.9	16.5
30°-40°	687.6	18.6
40°-50°	661.3	17.9
50°-60°	548.2	14.8
60°-70°	374.0	10.1
70°-80°	185.8	5.0
80°-90°	46.1	1.2
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°	1188.8	32.2
0°-40°	1876.5	50.8
0°-60°	3085.9	83.6
0°-90°	3691.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3691.8	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1622	1622	1622	1622	1622	
5°	1626	1620	1601	1612	1607	154
15°	1545	1531	1502	1498	1480	435
25°	1401	1377	1314	1287	1268	645
35°	1210	1164	1088	1036	1009	756
45°	987	934	847	777	750	762
55°	752	693	601	530	504	674
65°	511	447	359	303	284	506
75°	266	214	152	127	122	282
85°	60	40	35	35	33	72
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1621.5	1621.5	1621.5	1621.5	1621.5
2.5°	1627.8	1621.5	1607.2	1621.5	1618.3
5°	1626.2	1619.9	1600.8	1611.9	1607.2
7.5°	1615.1	1607.2	1588.1	1594.5	1588.1
10°	1592.9	1588.1	1567.5	1570.7	1561.2
12.5°	1569.1	1561.2	1539.0	1539.0	1524.7
15°	1545.3	1531.0	1502.5	1497.7	1480.3
17.5°	1515.2	1505.6	1459.6	1451.7	1429.5
20°	1478.7	1461.2	1413.6	1399.3	1380.3
22.5°	1440.6	1420.0	1370.8	1347.0	1327.9
25°	1400.9	1377.1	1313.7	1286.7	1267.7
27.5°	1354.9	1327.9	1259.7	1228.0	1202.6
30°	1308.9	1275.6	1204.2	1166.1	1140.7
32.5°	1258.1	1223.2	1147.1	1099.5	1075.7
35°	1210.5	1164.5	1088.4	1036.0	1009.0
37.5°	1155.0	1109.0	1028.1	969.4	947.2
40°	1102.7	1053.5	967.8	905.9	880.5
42.5°	1045.5	993.2	907.5	842.5	813.9
45°	986.8	934.5	847.2	777.4	750.4
47.5°	931.3	875.8	783.8	715.5	690.2
50°	871.0	817.1	720.3	652.1	626.7
52.5°	813.9	753.6	658.4	590.2	564.8
55°	752.0	693.3	601.3	529.9	504.5
57.5°	694.9	633.0	536.3	469.6	452.2
60°	633.0	569.6	477.6	414.1	391.9
62.5°	572.7	506.1	415.7	357.0	337.9
65°	510.9	447.4	358.6	303.0	284.0
67.5°	450.6	388.7	299.9	253.8	236.4
70°	388.7	328.4	250.7	206.3	193.6
72.5°	326.8	271.3	198.3	163.4	153.9
75°	266.5	214.2	152.3	126.9	122.2
77.5°	206.3	163.4	112.6	100.0	98.4
80°	153.9	112.6	82.5	76.2	76.2
82.5°	103.1	69.8	57.1	55.5	53.9
85°	60.3	39.7	34.9	34.9	33.3
87.5°	25.4	15.9	15.9	15.9	14.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)