

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: P242617

Luminaire Tested: **S124DR-S1195D930-X4F0-XX-UDD-F-W**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P242617  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1802-639-5)  
Test Lab: INNOVATION CENTER  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: NEO-RAY  
Catalog Number: S124DR-S1195D930-X4F0-XX-UDD-F-W  
Description: DEFINE 4 DIRECT RECESSED WITH SATIN FLUSH DIFFUSER  
STANDARD LIGHT ENGINE  
Light Source: (92) 3000K CCT, 90 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 3870.6 lumens  
Efficiency: N/A  
Efficacy: 94.2 lumens/watt  
Spacing Criteria (0/90/45): 1.2 / 1.17 / 1.29  
Luminous Opening: Rectangular (W 0.31' x L: 3.88' x H: 0')  
CIE Type: Direct

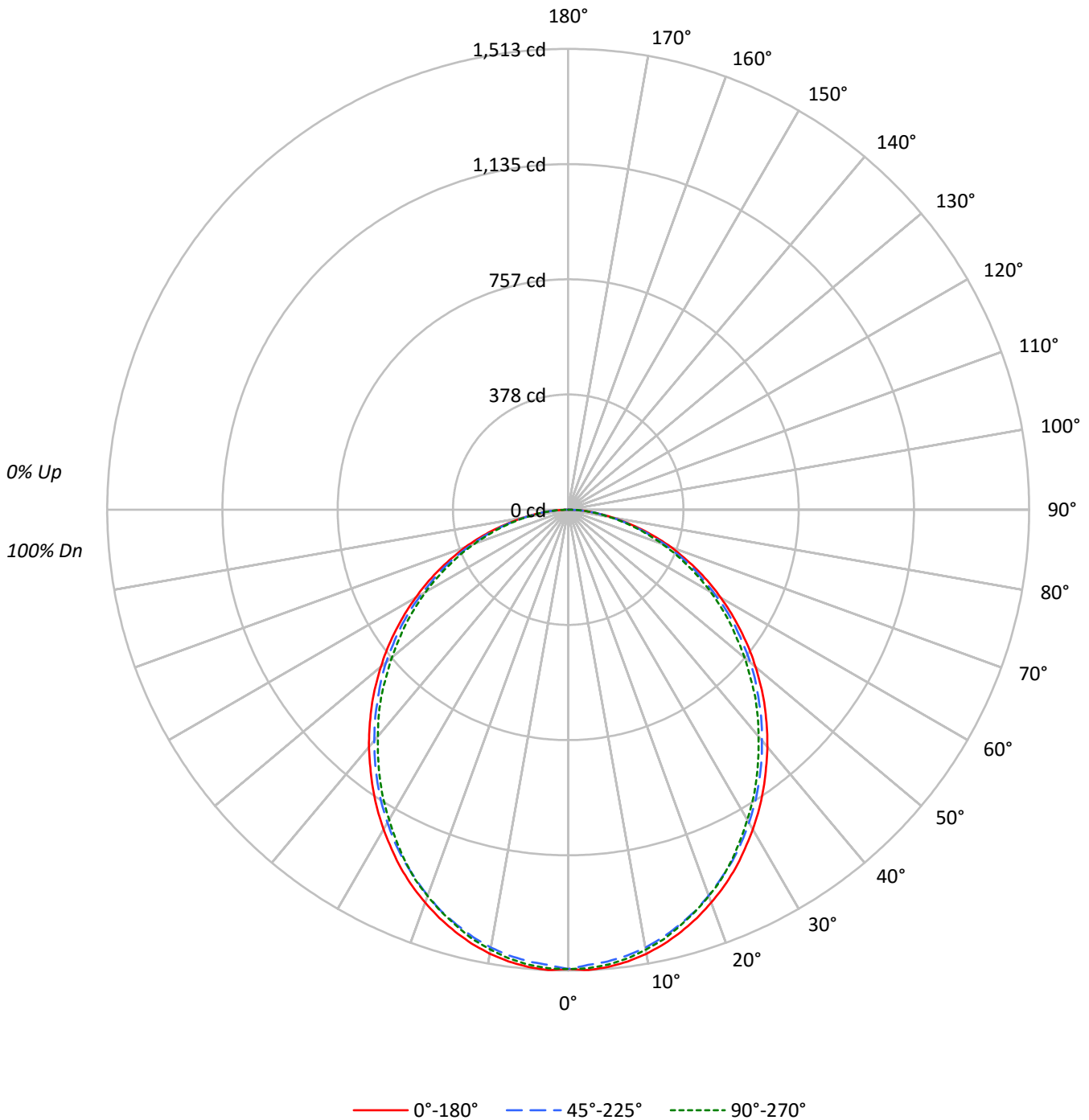
Input Watts (W): 41.1  
Input Voltage (V): 120  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	60
4	83	71	63	56	81	70	62	56	67	60	55	65	59	54	63	58	53	51
5	77	64	55	48	74	63	54	48	61	53	48	59	52	47	57	51	47	44
6	71	58	49	42	69	57	48	42	55	47	42	53	47	41	52	46	41	39
7	66	52	44	38	64	52	43	37	50	43	37	49	42	37	47	41	37	35
8	61	48	39	34	60	47	39	34	46	39	33	45	38	33	43	37	33	31
9	57	44	36	30	56	43	36	30	42	35	30	41	35	30	40	34	30	28
10	54	41	33	28	52	40	33	28	39	32	27	38	32	27	37	31	27	25

**AVERAGE LUMINANCE (cd/sqm):**

	0°	45°	90°
0°	13404	13404	13404
5°	13445	13283	13380
10°	13360	13175	13240
15°	13199	12987	13022
20°	12985	12756	12767
25°	12740	12491	12456
30°	12440	12179	12067
35°	12129	11853	11696
40°	11806	11483	11273
45°	11468	11119	10906
50°	11095	10795	10460
55°	10693	10374	10038
60°	10290	9902	9602
65°	9835	9454	9074
70°	9328	8857	8512
75°	8548	8133	7927
80°	7607	7300	7115
85°	6660	6405	6283



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	142.1	3.7
10°-20°	400.4	10.3
20°-30°	589.3	15.2
30°-40°	685.1	17.7
40°-50°	685.0	17.7
50°-60°	599.1	15.5
60°-70°	444.8	11.5
70°-80°	252.4	6.5
80°-90°	72.3	1.9
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°	1131.9	29.2
0°-40°	1817.0	46.9
0°-60°	3101.1	80.1
0°-90°	3870.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3870.6	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1508	1508	1508	1508	1508	
5°	1507	1502	1489	1502	1500	143
15°	1434	1430	1411	1419	1415	404
25°	1299	1290	1274	1275	1270	598
35°	1118	1109	1092	1084	1078	699
45°	912	904	884	871	868	703
55°	690	686	669	655	648	618
65°	468	462	450	437	431	463
75°	249	243	237	232	231	264
85°	65	65	63	63	62	74
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1508.0	1508.0	1508.0	1508.0	1508.0
2.5°	1512.8	1509.2	1495.9	1508.0	1506.8
5°	1506.8	1502.0	1488.7	1502.0	1499.5
7.5°	1495.9	1491.1	1476.6	1487.5	1486.3
10°	1480.2	1475.4	1459.7	1469.3	1466.9
12.5°	1459.7	1454.8	1437.9	1448.8	1445.2
15°	1434.3	1429.5	1411.3	1418.6	1415.0
17.5°	1405.3	1399.3	1382.3	1387.2	1384.8
20°	1372.7	1366.6	1348.5	1352.1	1349.7
22.5°	1337.6	1329.2	1311.0	1318.3	1313.5
25°	1299.0	1290.5	1273.6	1274.8	1270.0
27.5°	1255.5	1247.0	1231.3	1228.9	1222.8
30°	1212.0	1202.3	1186.6	1181.8	1175.7
32.5°	1166.0	1157.6	1140.7	1134.6	1128.6
35°	1117.7	1109.3	1092.3	1083.9	1077.8
37.5°	1067.0	1059.7	1041.6	1033.1	1024.7
40°	1017.4	1007.8	989.6	977.5	971.5
42.5°	964.3	959.4	938.9	924.4	920.8
45°	912.3	903.8	884.5	871.2	867.6
47.5°	857.9	851.9	833.8	819.3	809.6
50°	802.3	797.5	780.6	763.7	756.4
52.5°	748.0	741.9	723.8	709.3	699.6
55°	690.0	686.3	669.4	654.9	647.7
57.5°	635.6	632.0	615.0	600.5	593.3
60°	578.8	572.8	557.0	546.2	540.1
62.5°	523.2	518.4	501.5	491.8	485.8
65°	467.6	461.6	449.5	437.4	431.4
67.5°	410.8	406.0	393.9	381.8	380.6
70°	358.9	350.4	340.8	331.1	327.5
72.5°	303.3	294.8	287.6	280.3	276.7
75°	248.9	242.9	236.8	232.0	230.8
77.5°	195.8	193.3	187.3	186.1	182.5
80°	148.6	145.0	142.6	140.2	139.0
82.5°	102.7	101.5	101.5	100.3	99.1
85°	65.3	65.3	62.8	62.8	61.6
87.5°	31.4	30.2	29.0	29.0	29.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)