

Scaled data based on original data using  
LM-79-2019 Approved Method: Electrical and Photometric Measurements of Solid-  
State Lighting Products

Test Report Prepared for  
Cooper Lighting Solutions

Brand: NEO-RAY

Report Number: P1055592

Luminaire Tested: S123R3DR-S1165D930-X4F0-XX-UDD-FLL-W

Issue Date: 7/25/2025

**Test Information**

Test Method: LM-79-2019  
Report Number: P1055592  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2503-402-4)  
Test Lab: INNOVATION CENTER  
Issue Date: 7/25/2025  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: NEO-RAY  
Catalog Number: S123R3DR-S1165D930-X4F0-XX-UDD-FLL-W  
Description: DEFINE 3, WHITE 3-INCH REGRESSED DIRECT RECESSED HOUSING WITH FROSTED LENS  
CORE LIGHT ENGINE  
Light Source: 3000K CCT, 90 CRI LEDS  
Ballast/Driver: -

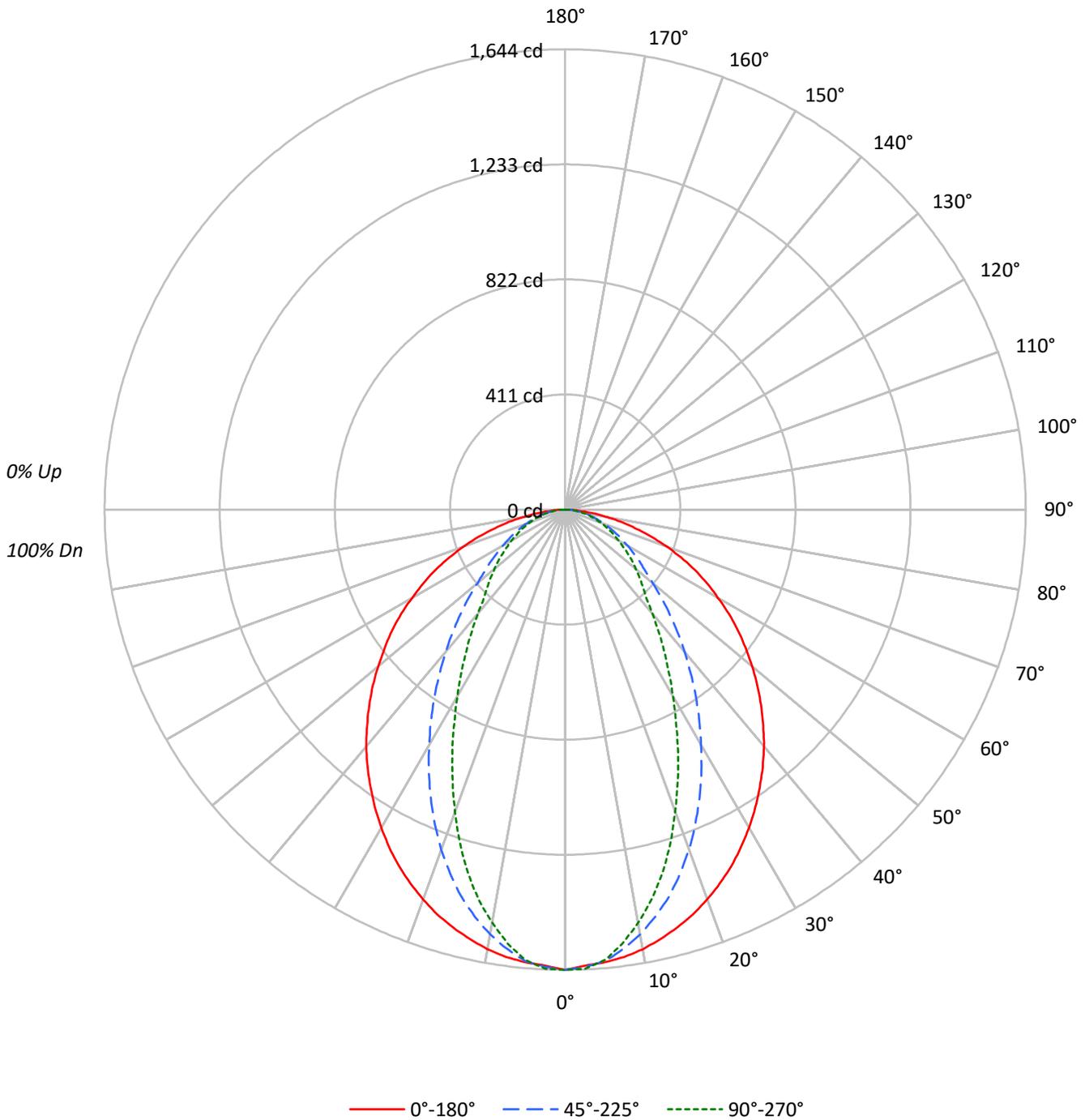
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 2883.3 lumens  
Efficiency: N/A  
Efficacy: 68.8 lumens/watt  
Spacing Criteria (0/90/45): 1.19 / 0.83 / 1.02  
Luminous Opening: Rectangular (W 0.23' x L: 3.9' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 41.9  
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: 24 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	0	
RCR																						
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100				100
1	110	106	102	99	107	104	100	97	99	97	94	96	93	91	92	90	88	86				86
2	101	94	88	83	99	92	87	82	89	84	80	85	82	78	83	79	76	74				74
3	93	84	77	71	91	82	76	70	80	74	69	77	72	68	74	70	67	65				65
4	86	75	68	61	84	74	67	61	72	65	60	70	64	59	67	63	59	57				57
5	80	68	60	54	78	67	60	54	65	58	53	63	57	53	62	56	52	50				50
6	75	62	54	48	73	61	54	48	60	53	48	58	52	47	57	51	47	45				45
7	70	57	49	43	68	56	49	43	55	48	43	53	47	43	52	47	42	40				40
8	65	53	45	39	64	52	44	39	51	44	39	49	43	39	48	43	39	37				37
9	61	49	41	36	60	48	41	36	47	40	36	46	40	35	45	39	35	34				34
10	58	45	38	33	56	45	38	33	44	37	33	43	37	33	42	37	33	31				31

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

	0°	45°	90°
0°	19821	19821	19821
5°	19644	19599	19554
10°	19524	18862	18350
15°	19292	17864	16759
20°	19010	16580	14734
25°	18680	15097	12676
30°	18265	13505	10715
35°	17825	11944	9049
40°	17378	10431	7605
45°	16856	8994	6709
50°	16329	7656	6158
55°	15843	6823	5686
60°	15181	6168	5307
65°	14558	5649	4981
70°	13568	5203	4681
75°	12144	4812	4411
80°	10415	4437	4096
85°	7318	4081	3915

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 16856 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	152.4	5.3
10°-20°	403.2	14.0
20°-30°	531.1	18.4
30°-40°	539.1	18.7
40°-50°	468.6	16.3
50°-60°	367.1	12.7
60°-70°	249.4	8.7
70°-80°	135.2	4.7
80°-90°	37.2	1.3
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°	1086.7	37.7
0°-40°	1625.8	56.4
0°-60°	2461.5	85.4
0°-90°	2883.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2883.3	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1644	1644	1644	1644	1644	
5°	1623	1643	1619	1605	1616	154
15°	1546	1524	1431	1361	1343	436
25°	1404	1319	1135	994	953	646
35°	1211	1067	812	657	615	758
45°	989	793	528	407	394	763
55°	754	524	325	277	270	673
65°	510	283	198	177	175	504
75°	261	130	103	96	95	278
85°	53	32	30	27	28	67
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1644.0	1644.0	1644.0	1644.0	1644.0
2.5°	1630.4	1651.3	1635.4	1636.6	1641.5
5°	1623.1	1642.7	1619.4	1604.6	1615.7
7.5°	1612.0	1626.8	1583.7	1560.4	1564.0
10°	1594.8	1599.7	1540.7	1503.8	1498.9
12.5°	1571.4	1562.8	1489.0	1434.9	1426.3
15°	1545.6	1523.5	1431.2	1361.2	1342.7
17.5°	1516.1	1479.2	1363.6	1277.5	1249.3
20°	1481.7	1430.0	1292.3	1182.9	1148.4
22.5°	1444.8	1378.4	1214.8	1085.7	1050.1
25°	1404.2	1319.4	1134.9	993.5	952.9
27.5°	1359.9	1260.3	1053.8	902.5	857.0
30°	1312.0	1198.9	970.1	814.0	769.7
32.5°	1262.8	1133.7	890.2	731.6	688.6
35°	1211.1	1067.3	811.5	656.6	614.8
37.5°	1158.3	999.7	735.3	585.3	545.9
40°	1104.2	930.8	662.8	518.9	483.2
42.5°	1046.4	861.9	592.7	456.2	429.1
45°	988.6	793.1	527.5	407.0	393.5
47.5°	930.8	723.0	466.0	372.6	360.3
50°	870.6	655.4	408.2	340.6	328.3
52.5°	811.5	589.0	360.3	309.9	301.3
55°	753.7	523.8	324.6	276.7	270.5
57.5°	693.5	459.9	289.0	250.8	243.5
60°	629.6	398.4	255.8	223.8	220.1
62.5°	571.8	340.6	226.2	200.4	196.7
65°	510.3	282.8	198.0	177.1	174.6
67.5°	447.6	234.9	172.1	154.9	153.7
70°	384.9	198.0	147.6	134.0	132.8
72.5°	323.4	163.5	124.2	115.6	113.1
75°	260.7	130.3	103.3	95.9	94.7
77.5°	204.1	100.8	82.4	77.5	76.2
80°	150.0	75.0	63.9	60.3	59.0
82.5°	98.4	51.6	45.5	43.0	43.0
85°	52.9	32.0	29.5	27.1	28.3
87.5°	18.4	13.5	13.5	12.3	13.5
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)