

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: P1055577

Luminaire Tested: S123R3DR-S1165D830-X4F0-XX-UDD-FLL-W

Issue Date: 7/25/2025

**Test Information**

Test Method: LM-79-2019  
Report Number: P1055577  
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-S1165D830-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, 80 CRI LEDS  
Ballast/Driver: -

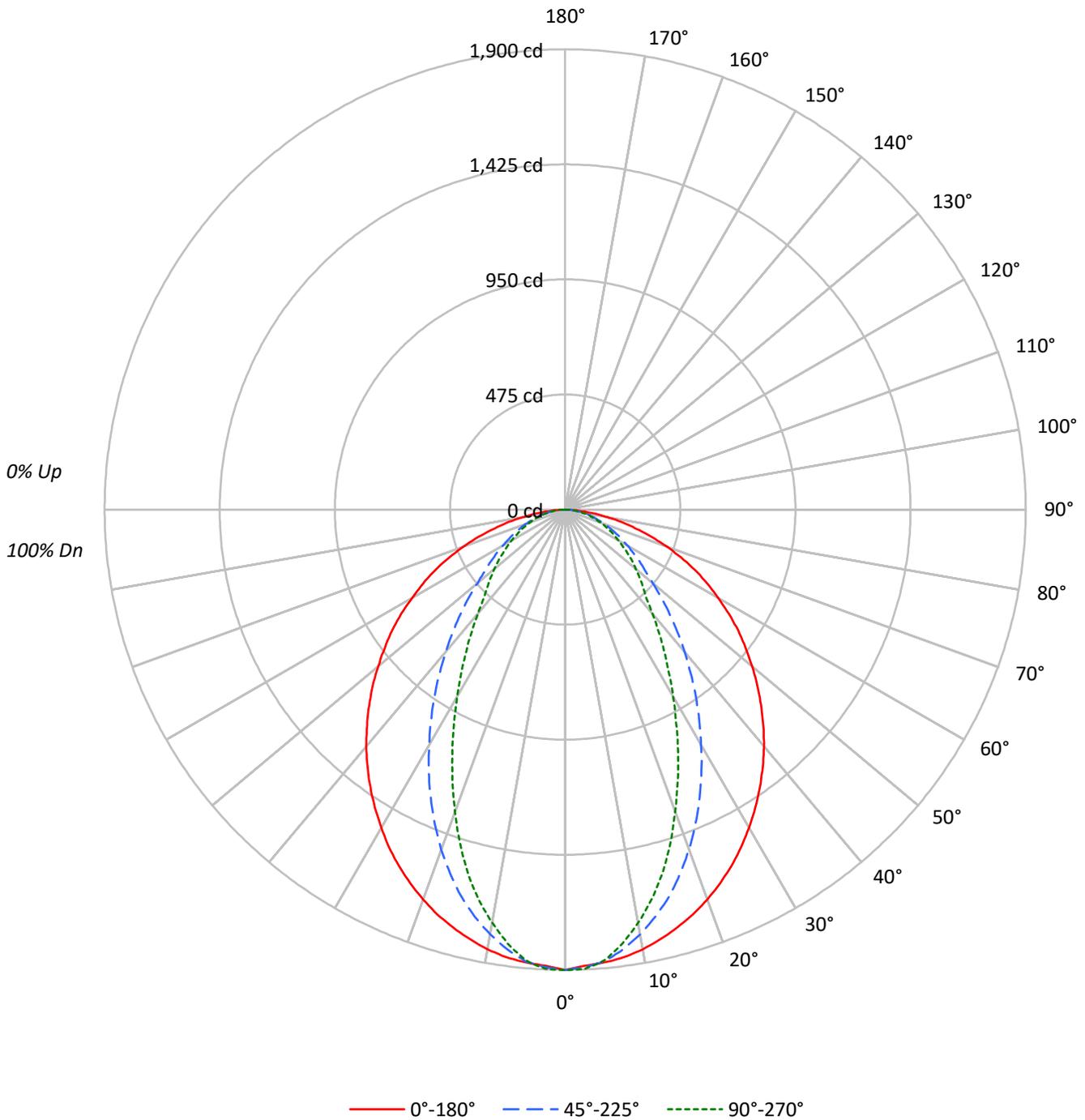
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 3333.3 lumens  
Efficiency: N/A  
Efficacy: 79.6 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				
1	110	106	102	99	107	104	100	97	99	97	94	96	93	91	92	90	88	86				
2	101	94	88	83	99	92	87	82	89	84	80	85	82	78	83	79	76	74				
3	93	84	77	71	91	82	76	70	80	74	69	77	72	68	74	70	67	65				
4	86	75	68	61	84	74	67	61	72	65	60	70	64	59	67	63	59	57				
5	80	68	60	54	78	67	60	54	65	58	53	63	57	53	62	56	52	50				
6	75	62	54	48	73	61	54	48	60	53	48	58	52	47	57	51	47	45				
7	70	57	49	43	68	56	49	43	55	48	43	53	47	43	52	47	42	40				
8	65	53	45	39	64	52	44	39	51	44	39	49	43	39	48	43	39	37				
9	61	49	41	36	60	48	41	36	47	40	36	46	40	35	45	39	35	34				
10	58	45	38	33	56	45	38	33	44	37	33	43	37	33	42	37	33	31				

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

	0°	45°	90°
0°	22913	22913	22913
5°	22709	22657	22605
10°	22571	21805	21214
15°	22302	20652	19375
20°	21977	19168	17035
25°	21594	17453	14656
30°	21115	15614	12389
35°	20608	13809	10460
40°	20090	12059	8792
45°	19487	10397	7756
50°	18876	8851	7118
55°	18317	7889	6573
60°	17549	7130	6134
65°	16829	6530	5760
70°	15683	6014	5411
75°	14040	5562	5101
80°	12039	5131	4735
85°	8452	4717	4523

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 19487 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	176.2	5.3
10°-20°	466.1	14.0
20°-30°	614.0	18.4
30°-40°	623.2	18.7
40°-50°	541.7	16.3
50°-60°	424.4	12.7
60°-70°	288.3	8.7
70°-80°	156.3	4.7
80°-90°	43.0	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°	1256.3	37.7
0°-40°	1879.5	56.4
0°-60°	2845.6	85.4
0°-90°	3333.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3333.3	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1900	1900	1900	1900	1900	
5°	1876	1899	1872	1855	1868	178
15°	1787	1761	1655	1574	1552	504
25°	1623	1525	1312	1149	1102	747
35°	1400	1234	938	759	711	876
45°	1143	917	610	470	455	882
55°	871	606	375	320	313	778
65°	590	327	229	205	202	583
75°	301	151	119	111	110	322
85°	61	37	34	31	33	77
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1900.5	1900.5	1900.5	1900.5	1900.5
2.5°	1884.9	1909.1	1890.6	1892.0	1897.7
5°	1876.4	1899.1	1872.1	1855.1	1867.8
7.5°	1863.6	1880.6	1830.9	1803.9	1808.1
10°	1843.7	1849.4	1781.1	1738.5	1732.8
12.5°	1816.7	1806.7	1721.4	1658.9	1648.9
15°	1786.8	1761.2	1654.6	1573.6	1552.3
17.5°	1752.7	1710.1	1576.4	1476.9	1444.2
20°	1712.9	1653.2	1494.0	1367.5	1327.7
22.5°	1670.3	1593.5	1404.4	1255.2	1214.0
25°	1623.3	1525.3	1312.0	1148.6	1101.7
27.5°	1572.2	1457.0	1218.2	1043.4	990.8
30°	1516.7	1386.0	1121.6	941.0	889.9
32.5°	1459.9	1310.6	1029.2	845.8	796.0
35°	1400.2	1233.9	938.2	759.1	710.7
37.5°	1339.1	1155.7	850.1	676.6	631.1
40°	1276.5	1076.1	766.2	599.9	558.6
42.5°	1209.7	996.5	685.2	527.4	496.1
45°	1142.9	916.9	609.8	470.5	454.9
47.5°	1076.1	835.8	538.7	430.7	416.5
50°	1006.4	757.7	471.9	393.8	379.5
52.5°	938.2	680.9	416.5	358.2	348.3
55°	871.4	605.6	375.3	319.8	312.7
57.5°	801.7	531.6	334.1	290.0	281.5
60°	727.8	460.6	295.7	258.7	254.4
62.5°	661.0	393.8	261.6	231.7	227.4
65°	589.9	326.9	228.9	204.7	201.9
67.5°	517.4	271.5	199.0	179.1	177.7
70°	444.9	228.9	170.6	154.9	153.5
72.5°	373.9	189.1	143.6	133.6	130.8
75°	301.4	150.7	119.4	110.9	109.5
77.5°	236.0	116.6	95.2	89.6	88.1
80°	173.4	86.7	73.9	69.7	68.2
82.5°	113.7	59.7	52.6	49.8	49.8
85°	61.1	37.0	34.1	31.3	32.7
87.5°	21.3	15.6	15.6	14.2	15.6
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)