

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: P1055576

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

Issue Date: 7/25/2025

**Test Information**

Test Method: LM-79-2019  
Report Number: P1055576  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2503-402-6)  
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-S  
Description: DEFINE 3, SILVER 3-INCH REGRESSED DIRECT RECESSED HOUSING WITH FROSTED LENS  
CORE LIGHT ENGINE  
Light Source: 3000K CCT, 80 CRI LEDS  
Ballast/Driver: -

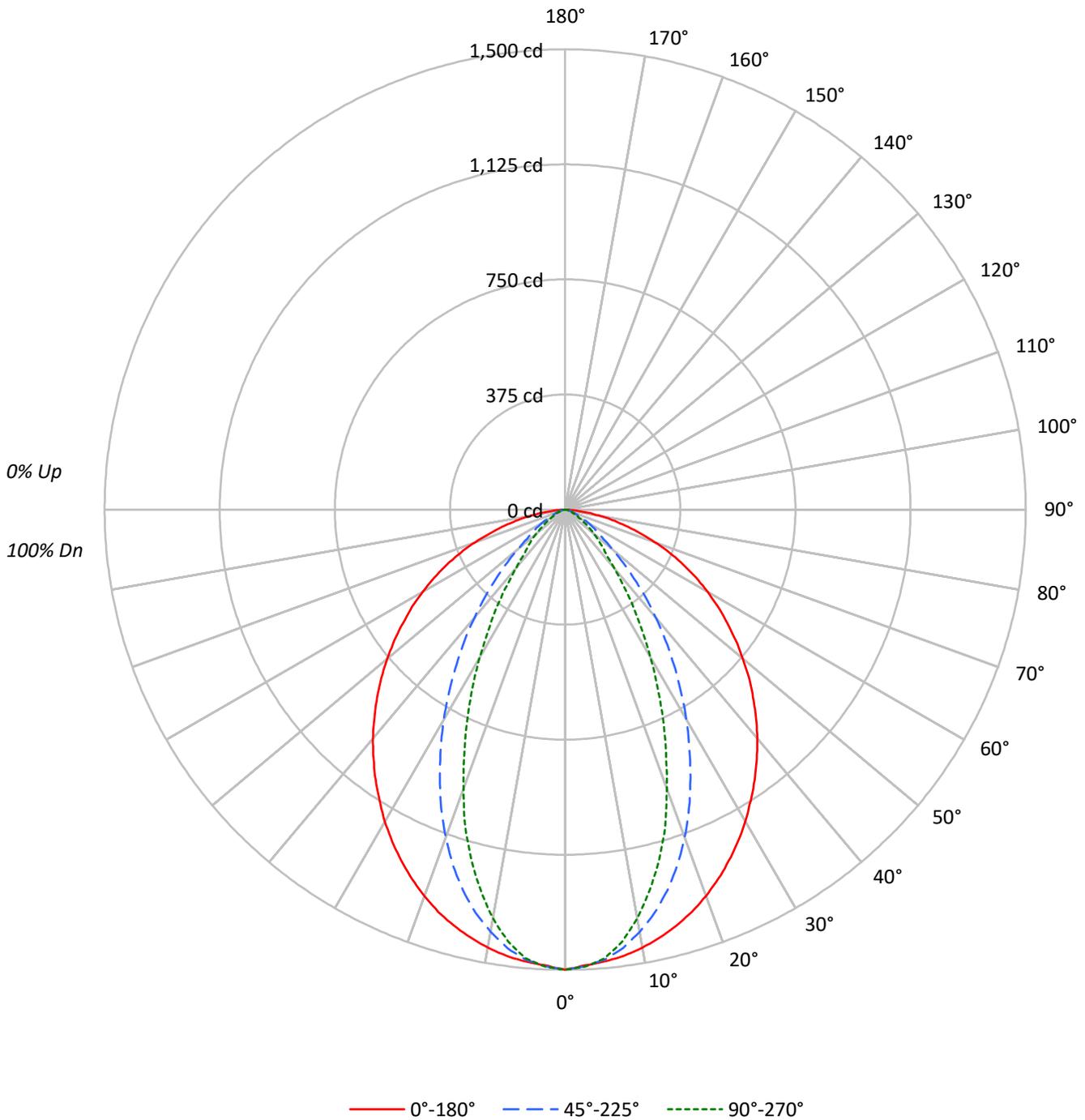
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 2085.6 lumens  
Efficiency: N/A  
Efficacy: 49.8 lumens/watt  
Spacing Criteria (0/90/45): 1.17 / 0.77 / 0.94  
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																		
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	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	111	108	104	102	109	106	103	100	101	99	97	98	96	94	94	93	91	89																												
2	104	97	92	87	101	95	90	86	92	88	84	89	85	82	86	83	81	79																												
3	96	88	81	76	94	86	80	76	84	78	74	81	77	73	79	75	72	70																												
4	90	80	73	67	88	79	72	67	76	71	66	74	69	65	72	68	64	62																												
5	84	73	66	60	82	72	65	60	70	64	59	68	63	59	67	62	58	56																												
6	78	67	60	54	77	66	59	54	65	58	53	63	57	53	62	57	53	51																												
7	73	62	54	49	72	61	54	49	60	53	49	58	53	48	57	52	48	46																												
8	69	57	50	45	68	57	50	45	56	49	45	54	49	44	53	48	44	42																												
9	65	53	46	41	64	53	46	41	52	45	41	51	45	41	50	45	41	39																												
10	62	50	43	38	60	49	43	38	48	42	38	48	42	38	47	42	38	36																												

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

	0°	45°	90°
0°	18081	18081	18081
5°	17892	17823	17771
10°	17750	17106	16568
15°	17512	16039	14745
20°	17199	14590	12420
25°	16792	12840	10022
30°	16347	11004	7718
35°	15838	9080	5712
40°	15325	7226	3892
45°	14760	5405	2933
50°	14157	3759	2292
55°	13535	2749	1673
60°	12888	2057	1201
65°	12124	1378	933
70°	10974	1001	751
75°	9470	727	596
80°	7603	590	493
85°	3929	595	387

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 14760 cd/sqm

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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	138.6	6.6
10°-20°	360.9	17.3
20°-30°	453.4	21.7
30°-40°	422.3	20.2
40°-50°	323.2	15.5
50°-60°	214.9	10.3
60°-70°	115.8	5.6
70°-80°	47.4	2.3
80°-90°	9.1	0.4
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°	952.9	45.7
0°-40°	1375.1	65.9
0°-60°	1913.2	91.7
0°-90°	2085.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2085.6	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1500	1500	1500	1500	1500	
5°	1478	1494	1473	1467	1468	140
15°	1403	1380	1285	1210	1181	395
25°	1262	1177	965	805	753	581
35°	1076	917	617	436	388	673
45°	866	640	317	186	172	668
55°	644	372	131	91	80	577
65°	425	144	48	36	33	420
75°	203	34	16	14	13	218
85°	28	4	4	4	3	42
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1499.7	1499.7	1499.7	1499.7	1499.7
2.5°	1486.9	1505.4	1489.7	1491.1	1491.1
5°	1478.4	1494.0	1472.7	1467.0	1468.4
7.5°	1467.0	1476.9	1441.4	1422.9	1420.1
10°	1449.9	1452.8	1397.3	1364.6	1353.3
12.5°	1428.6	1418.7	1346.2	1292.1	1270.8
15°	1403.0	1380.3	1285.0	1209.7	1181.3
17.5°	1374.6	1336.2	1215.4	1117.3	1083.2
20°	1340.5	1286.5	1137.2	1014.9	968.0
22.5°	1303.5	1233.9	1054.7	909.8	857.2
25°	1262.3	1177.0	965.2	804.6	753.4
27.5°	1219.6	1115.9	877.1	705.1	652.5
30°	1174.2	1053.3	790.4	608.4	554.4
32.5°	1124.4	985.1	700.8	518.8	464.8
35°	1076.1	916.9	616.9	436.4	388.1
37.5°	1024.9	848.6	535.9	363.9	309.9
40°	973.7	779.0	459.1	292.8	247.3
42.5°	919.7	709.3	386.6	233.1	197.6
45°	865.7	639.7	317.0	186.2	172.0
47.5°	811.7	570.0	255.9	160.6	146.4
50°	754.8	503.2	200.4	136.5	122.2
52.5°	700.8	436.4	156.4	112.3	99.5
55°	643.9	372.4	130.8	91.0	79.6
57.5°	591.3	307.0	108.0	71.1	62.5
60°	534.5	248.8	85.3	55.4	49.8
62.5°	480.5	194.7	65.4	44.1	39.8
65°	425.0	143.6	48.3	35.5	32.7
67.5°	369.6	103.8	37.0	28.4	27.0
70°	311.3	78.2	28.4	22.7	21.3
72.5°	255.9	55.4	21.3	18.5	17.1
75°	203.3	34.1	15.6	14.2	12.8
77.5°	156.4	19.9	11.4	11.4	10.0
80°	109.5	11.4	8.5	8.5	7.1
82.5°	66.8	7.1	5.7	5.7	5.7
85°	28.4	4.3	4.3	4.3	2.8
87.5°	4.3	1.4	1.4	1.4	1.4
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)