

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: P1055553

Luminaire Tested: S123R3DR-S1000D835-X4F0-XX-UDD-FLL-W

Issue Date: 7/25/2025

**Test Information**

Test Method: LM-79-2019  
Report Number: P1055553  
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-S1000D835-X4F0-XX-UDD-FLL-W  
Description: DEFINE 3, WHITE 3-INCH REGRESSED DIRECT RECESSED HOUSING WITH FROSTED LENS  
CORE LIGHT ENGINE  
Light Source: 3500K CCT, 80 CRI LEDS  
Ballast/Driver: -

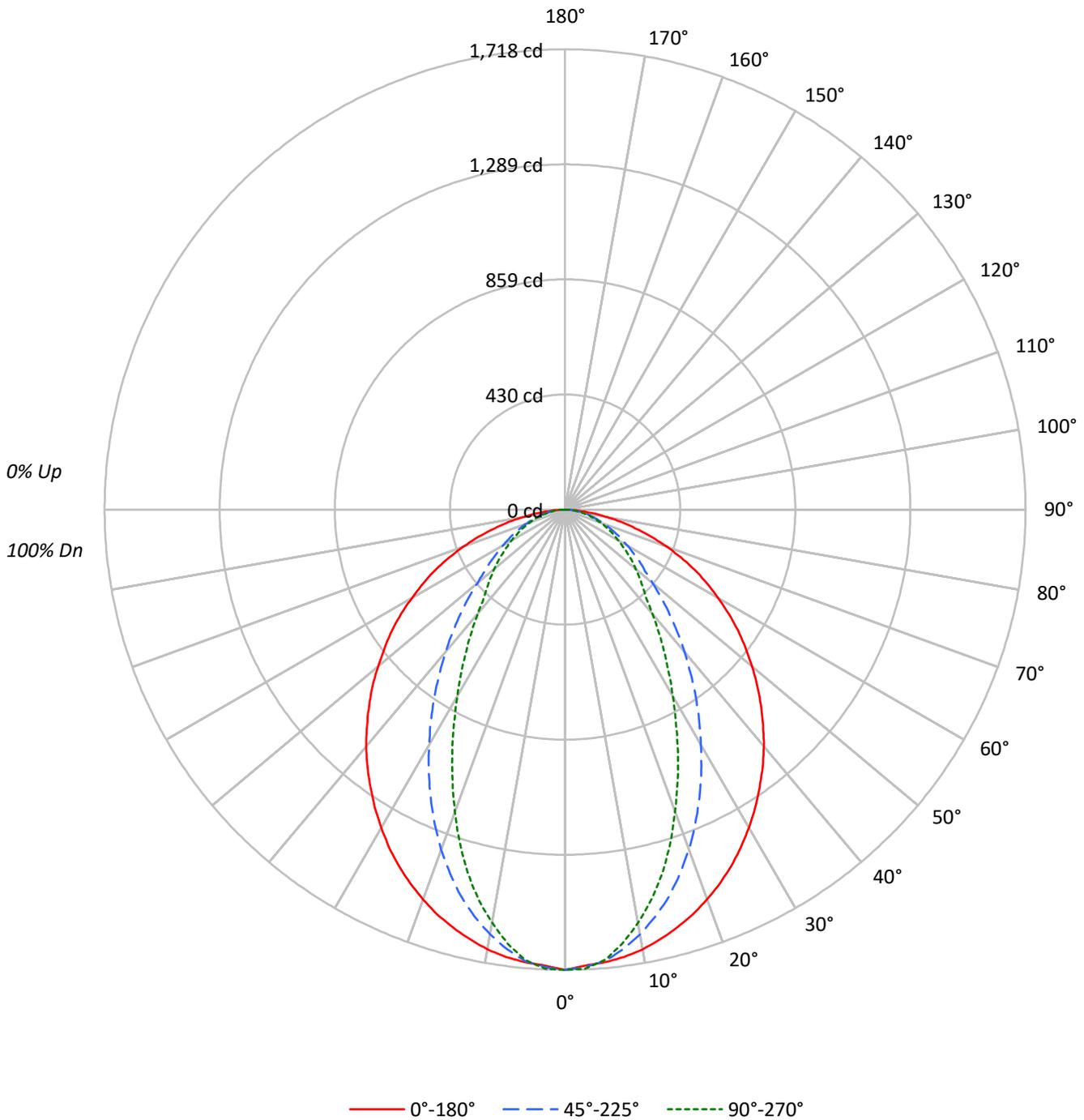
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 3013.3 lumens  
Efficiency: N/A  
Efficacy: 86.8 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): 34.7  
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	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°	20714	20714	20714
5°	20529	20482	20436
10°	20404	19713	19178
15°	20162	18670	17516
20°	19868	17328	15399
25°	19522	15778	13248
30°	19089	14115	11198
35°	18630	12482	9456
40°	18162	10900	7948
45°	17616	9400	7011
50°	17065	8001	6435
55°	16557	7132	5942
60°	15866	6445	5546
65°	15214	5902	5206
70°	14178	5436	4893
75°	12689	5026	4607
80°	10887	4638	4284
85°	7650	4261	4095

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 17616 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	159.3	5.3
10°-20°	421.4	14.0
20°-30°	555.1	18.4
30°-40°	563.4	18.7
40°-50°	489.7	16.3
50°-60°	383.7	12.7
60°-70°	260.7	8.7
70°-80°	141.3	4.7
80°-90°	38.9	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°	1135.7	37.7
0°-40°	1699.1	56.4
0°-60°	2572.5	85.4
0°-90°	3013.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3013.3	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1718	1718	1718	1718	1718	
5°	1696	1717	1692	1677	1689	161
15°	1615	1592	1496	1423	1403	455
25°	1468	1379	1186	1038	996	676
35°	1266	1115	848	686	642	792
45°	1033	829	551	425	411	797
55°	788	547	339	289	283	703
65°	533	296	207	185	182	527
75°	272	136	108	100	99	291
85°	55	33	31	28	30	70
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1718.1	1718.1	1718.1	1718.1	1718.1
2.5°	1704.0	1725.8	1709.1	1710.4	1715.6
5°	1696.3	1716.8	1692.4	1677.0	1688.6
7.5°	1684.7	1700.1	1655.2	1630.7	1634.6
10°	1666.7	1671.9	1610.2	1571.6	1566.5
12.5°	1642.3	1633.3	1556.2	1499.7	1490.7
15°	1615.3	1592.2	1495.8	1422.6	1403.3
17.5°	1584.5	1545.9	1425.1	1335.2	1305.6
20°	1548.5	1494.5	1350.6	1236.2	1200.2
22.5°	1510.0	1440.6	1269.6	1134.7	1097.4
25°	1467.5	1378.9	1186.1	1038.3	995.9
27.5°	1421.3	1317.2	1101.3	943.2	895.7
30°	1371.2	1252.9	1013.9	850.7	804.4
32.5°	1319.8	1184.8	930.4	764.6	719.6
35°	1265.8	1115.4	848.1	686.2	642.5
37.5°	1210.5	1044.8	768.5	611.7	570.6
40°	1154.0	972.8	692.6	542.3	505.0
42.5°	1093.6	900.8	619.4	476.8	448.5
45°	1033.2	828.9	551.3	425.4	411.2
47.5°	972.8	755.6	487.0	389.4	376.5
50°	909.8	684.9	426.6	356.0	343.1
52.5°	848.1	615.5	376.5	323.8	314.8
55°	787.7	547.4	339.3	289.1	282.7
57.5°	724.8	480.6	302.0	262.2	254.4
60°	658.0	416.4	267.3	233.9	230.0
62.5°	597.6	356.0	236.5	209.5	205.6
65°	533.3	295.6	206.9	185.0	182.5
67.5°	467.8	245.4	179.9	161.9	160.6
70°	402.2	206.9	154.2	140.1	138.8
72.5°	338.0	170.9	129.8	120.8	118.2
75°	272.4	136.2	107.9	100.2	98.9
77.5°	213.3	105.4	86.1	81.0	79.7
80°	156.8	78.4	66.8	63.0	61.7
82.5°	102.8	54.0	47.5	45.0	45.0
85°	55.3	33.4	30.8	28.3	29.6
87.5°	19.3	14.1	14.1	12.9	14.1
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)