

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: P1055154

Luminaire Tested: S122R3DR-S1005D850-X4F0-XX-UDD-FLL-W

Issue Date: 7/25/2025

**Test Information**

Test Method: LM-79-2019  
Report Number: P1055154  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2503-402-1)  
Test Lab: INNOVATION CENTER  
Issue Date: 7/25/2025  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: NEO-RAY  
Catalog Number: S122R3DR-S1005D850-X4F0-XX-UDD-FLL-W  
Description: DEFINE 2, WHITE 3-INCH REGRESSED DIRECT RECESSED HOUSING WITH FROSTED LENS  
CORE LIGHT ENGINE  
Light Source: 5000K CCT, 80 CRI LEDS  
Ballast/Driver: -

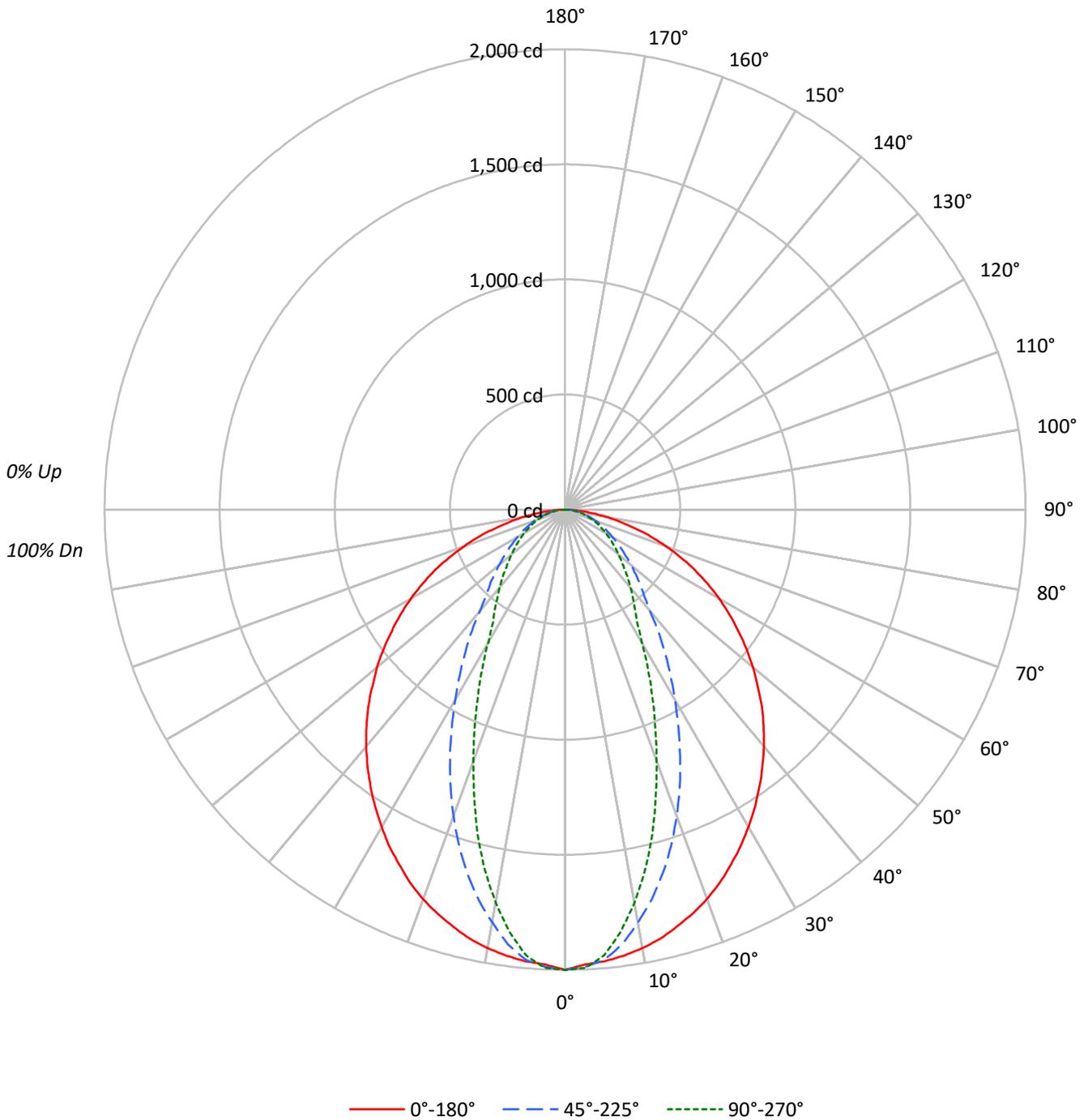
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 3025.7 lumens  
Efficiency: N/A  
Efficacy: 72.2 lumens/watt  
Spacing Criteria (0/90/45): 1.19 / 0.71 / 0.9  
Luminous Opening: Rectangular (W 0.15' 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	108	104	101	97	100	97	94	96	94	92	92	91	89	87				
2	102	95	89	84	99	93	87	83	89	85	81	86	82	79	83	80	77	75				
3	94	85	78	72	92	83	77	71	80	75	70	78	73	69	75	71	68	66				
4	87	76	69	63	85	75	68	62	73	66	61	71	65	61	68	64	60	58				
5	81	69	61	55	79	68	61	55	66	60	55	64	59	54	63	58	54	52				
6	75	63	55	50	74	63	55	49	61	54	49	59	53	49	58	52	48	46				
7	71	58	50	45	69	58	50	45	56	49	44	55	49	44	53	48	44	42				
8	66	54	46	41	65	53	46	41	52	45	40	51	45	40	50	44	40	38				
9	62	50	43	37	61	49	42	37	48	42	37	47	41	37	46	41	37	35				
10	59	47	39	35	58	46	39	34	45	39	34	44	38	34	43	38	34	32				

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

	0°	45°	90°
0°	37899	37899	37899
5°	37472	37344	36994
10°	37228	35040	33367
15°	36808	32116	28705
20°	36317	28561	23436
25°	35592	24684	18705
30°	34834	20855	14598
35°	34041	17446	12263
40°	33218	14147	10922
45°	32356	12368	9769
50°	31402	10944	8922
55°	30329	9890	8287
60°	29279	8999	7734
65°	27893	8249	7271
70°	25847	7689	6858
75°	22897	6976	6486
80°	19530	6568	6023
85°	13456	5826	5456

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 32356 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	183.3	6.1
10°-20°	462.8	15.3
20°-30°	570.3	18.8
30°-40°	547.1	18.1
40°-50°	471.9	15.6
50°-60°	366.1	12.1
60°-70°	250.7	8.3
70°-80°	136.1	4.5
80°-90°	37.3	1.2
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°	1216.4	40.2
0°-40°	1763.5	58.3
0°-60°	2601.6	86.0
0°-90°	3025.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3025.7	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	2000	2000	2000	2000	2000	
5°	1970	1999	1964	1938	1945	187
15°	1877	1820	1637	1504	1464	529
25°	1703	1520	1181	963	895	785
35°	1472	1167	754	562	530	921
45°	1208	813	462	381	365	931
55°	918	488	299	259	251	822
65°	622	266	184	167	162	614
75°	313	122	95	90	89	335
85°	62	30	27	27	25	79
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	2000.4	2000.4	2000.4	2000.4	2000.4
2.5°	1978.6	2012.1	1988.7	1988.7	1993.7
5°	1970.3	1998.7	1963.6	1938.5	1945.2
7.5°	1955.2	1975.3	1905.0	1851.5	1849.8
10°	1935.1	1936.8	1821.4	1751.2	1734.4
12.5°	1910.0	1883.3	1736.1	1630.7	1605.6
15°	1876.6	1819.7	1637.4	1503.6	1463.5
17.5°	1841.5	1754.5	1532.0	1364.8	1309.6
20°	1801.3	1675.9	1416.6	1226.0	1162.4
22.5°	1756.2	1600.6	1301.2	1092.2	1025.3
25°	1702.6	1520.3	1180.8	963.4	894.8
27.5°	1650.8	1438.4	1065.4	849.7	779.4
30°	1592.3	1349.7	953.3	740.9	667.3
32.5°	1533.7	1259.4	849.7	637.2	582.0
35°	1471.8	1167.4	754.3	562.0	530.2
37.5°	1408.3	1077.1	664.0	511.8	483.4
40°	1343.1	986.8	572.0	463.3	441.6
42.5°	1276.1	898.2	508.5	423.2	403.1
45°	1207.6	812.9	461.6	381.3	364.6
47.5°	1134.0	727.6	416.5	346.2	331.2
50°	1065.4	645.6	371.3	314.4	302.7
52.5°	991.8	565.3	334.5	286.0	276.0
55°	918.2	488.4	299.4	259.2	250.9
57.5°	846.3	414.8	265.9	234.2	227.5
60°	772.7	356.3	237.5	210.7	204.1
62.5°	697.5	309.4	210.7	189.0	182.3
65°	622.2	265.9	184.0	167.3	162.2
67.5°	543.6	224.1	160.6	147.2	143.8
70°	466.6	187.3	138.8	127.1	123.8
72.5°	391.4	152.2	117.1	108.7	105.4
75°	312.8	122.1	95.3	90.3	88.6
77.5°	244.2	95.3	76.9	73.6	71.9
80°	179.0	70.2	60.2	56.9	55.2
82.5°	118.8	48.5	43.5	41.8	40.1
85°	61.9	30.1	26.8	26.8	25.1
87.5°	20.1	13.4	13.4	13.4	11.7
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)