

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: P1055261

Luminaire Tested: S122R3DR-S865D850-X4F0-XX-UDD-FLL-S

Issue Date: 7/25/2025

**Test Information**

Test Method: LM-79-2019  
Report Number: P1055261  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2503-402-3)  
Test Lab: INNOVATION CENTER  
Issue Date: 7/25/2025  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: NEO-RAY  
Catalog Number: S122R3DR-S865D850-X4F0-XX-UDD-FLL-S  
Description: DEFINE 2, SILVER 3-INCH REGRESSED DIRECT RECESSED HOUSING WITH FROSTED LENS  
CORE LIGHT ENGINE  
Light Source: 5000K CCT, 80 CRI LEDS  
Ballast/Driver: -

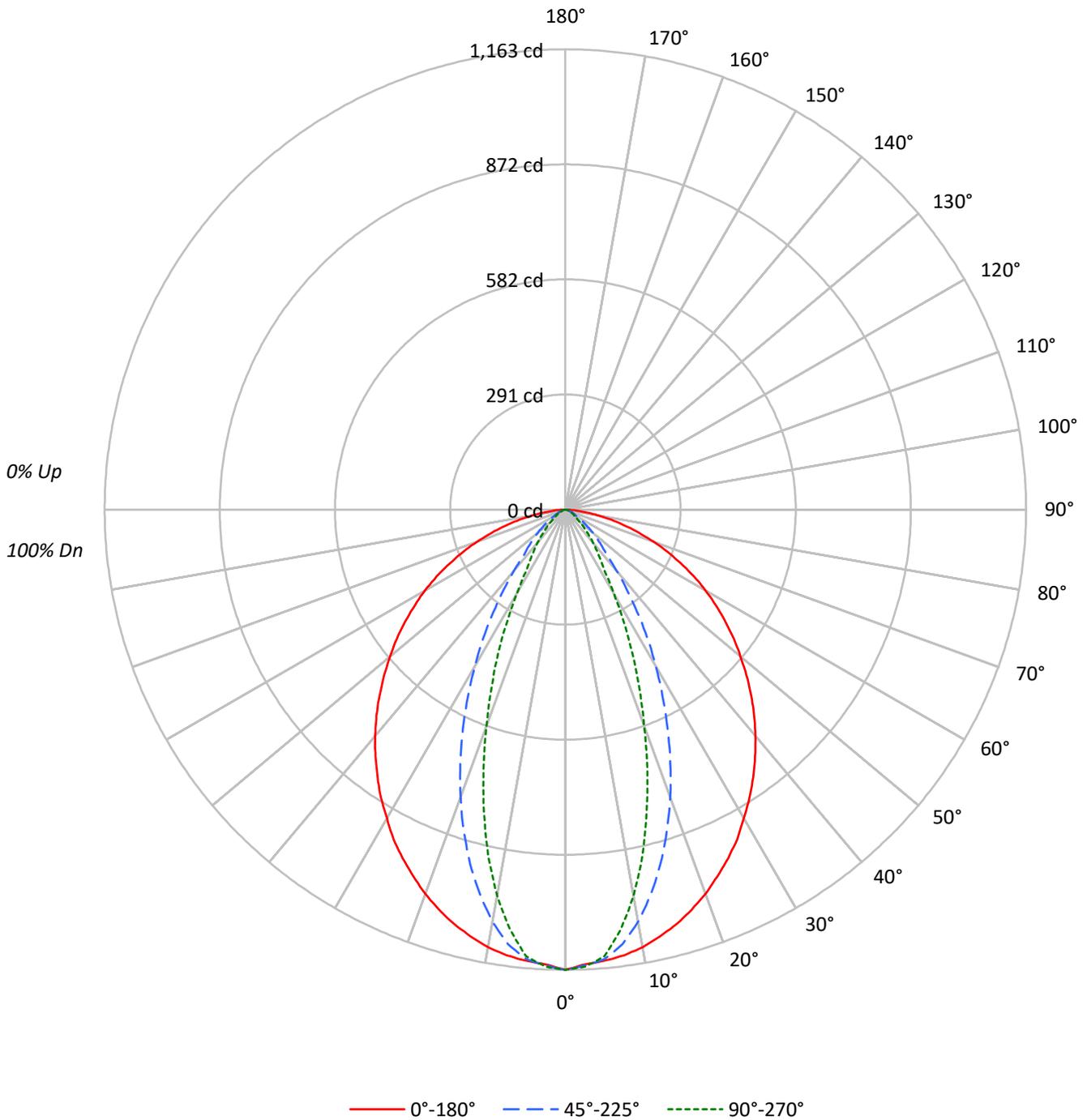
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 1332.8 lumens  
Efficiency: N/A  
Efficacy: 38.4 lumens/watt  
Spacing Criteria (0/90/45): 1.16 / 0.64 / 0.81  
Luminous Opening: Rectangular (W 0.15' 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	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	112	108	105	102	109	106	103	100	102	99	97	98	96	94	94	93	92	90				
2	104	98	93	88	102	96	91	87	93	89	85	90	86	83	87	84	82	80				
3	97	89	83	78	95	88	82	77	85	80	76	82	78	74	80	76	73	71				
4	91	81	74	69	89	80	74	69	78	72	68	76	71	67	74	70	66	64				
5	85	75	67	62	83	74	67	62	72	66	61	70	65	61	68	64	60	58				
6	80	69	62	56	78	68	61	56	66	60	56	65	59	55	63	59	55	53				
7	75	64	57	52	74	63	56	51	62	56	51	60	55	51	59	54	50	49				
8	71	59	52	47	69	59	52	47	58	51	47	56	51	47	55	50	47	45				
9	67	56	49	44	66	55	48	44	54	48	44	53	47	43	52	47	43	42				
10	63	52	45	41	62	52	45	41	51	45	41	50	44	40	49	44	40	39				

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

	0°	45°	90°
0°	22032	22032	22032
5°	21764	21683	21548
10°	21604	20344	19055
15°	21272	18198	15542
20°	20831	15601	11724
25°	20317	12781	8372
30°	19704	9976	5331
35°	19118	7318	3559
40°	18470	4934	2678
45°	17756	3475	1910
50°	17013	2647	1344
55°	16288	1837	988
60°	15498	1243	811
65°	14377	897	641
70°	13106	709	554
75°	11368	630	417
80°	9023	469	469
85°	4956	630	304

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 17756 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	106.3	8.0
10°-20°	261.0	19.6
20°-30°	298.1	22.4
30°-40°	252.8	19.0
40°-50°	188.6	14.2
50°-60°	121.9	9.1
60°-70°	68.0	5.1
70°-80°	29.9	2.2
80°-90°	6.2	0.5
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°	665.4	49.9
0°-40°	918.2	68.9
0°-60°	1228.8	92.2
0°-90°	1332.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1332.8	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1163	1163	1163	1163	1163	
5°	1144	1159	1140	1129	1133	109
15°	1084	1058	928	829	792	305
25°	972	858	611	448	400	447
35°	827	623	316	172	154	517
45°	663	393	130	84	71	511
55°	493	187	56	34	30	441
65°	321	68	20	16	14	319
75°	155	14	9	7	6	166
85°	23	1	3	1	1	33
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1162.9	1162.9	1162.9	1162.9	1162.9
2.5°	1150.1	1167.2	1152.9	1152.9	1155.8
5°	1144.4	1158.6	1140.1	1128.7	1133.0
7.5°	1135.8	1145.8	1107.3	1073.1	1070.3
10°	1123.0	1127.3	1057.5	1004.7	990.5
12.5°	1104.5	1094.5	996.2	922.1	897.8
15°	1084.5	1057.5	927.8	829.4	792.4
17.5°	1060.3	1011.8	852.2	732.5	686.9
20°	1033.2	964.8	773.8	631.3	581.5
22.5°	1003.3	912.1	692.6	535.9	486.0
25°	971.9	857.9	611.4	447.5	400.5
27.5°	939.2	800.9	531.6	367.7	316.4
30°	900.7	742.5	456.0	290.7	243.7
32.5°	865.1	681.2	386.2	225.2	185.3
35°	826.6	622.8	316.4	172.4	153.9
37.5°	786.7	564.4	255.1	145.4	129.7
40°	746.8	505.9	199.5	122.6	108.3
42.5°	705.4	448.9	153.9	102.6	88.4
45°	662.7	393.3	129.7	84.1	71.3
47.5°	619.9	337.8	108.3	67.0	57.0
50°	577.2	285.0	89.8	52.7	45.6
52.5°	535.9	235.1	71.3	42.8	37.1
55°	493.1	186.7	55.6	34.2	29.9
57.5°	450.3	145.4	42.8	28.5	25.7
60°	409.0	109.7	32.8	22.8	21.4
62.5°	366.3	88.4	25.7	18.5	17.1
65°	320.7	68.4	20.0	15.7	14.3
67.5°	279.3	49.9	15.7	12.8	11.4
70°	236.6	34.2	12.8	11.4	10.0
72.5°	195.2	21.4	10.0	8.6	8.6
75°	155.3	14.3	8.6	7.1	5.7
77.5°	118.3	8.6	5.7	5.7	4.3
80°	82.7	5.7	4.3	4.3	4.3
82.5°	51.3	4.3	2.9	2.9	2.9
85°	22.8	1.4	2.9	1.4	1.4
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)