

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: P1055255

Luminaire Tested: S122R3DR-S865D835-X4F0-XX-UDD-FLL-S

Issue Date: 7/25/2025

**Test Information**

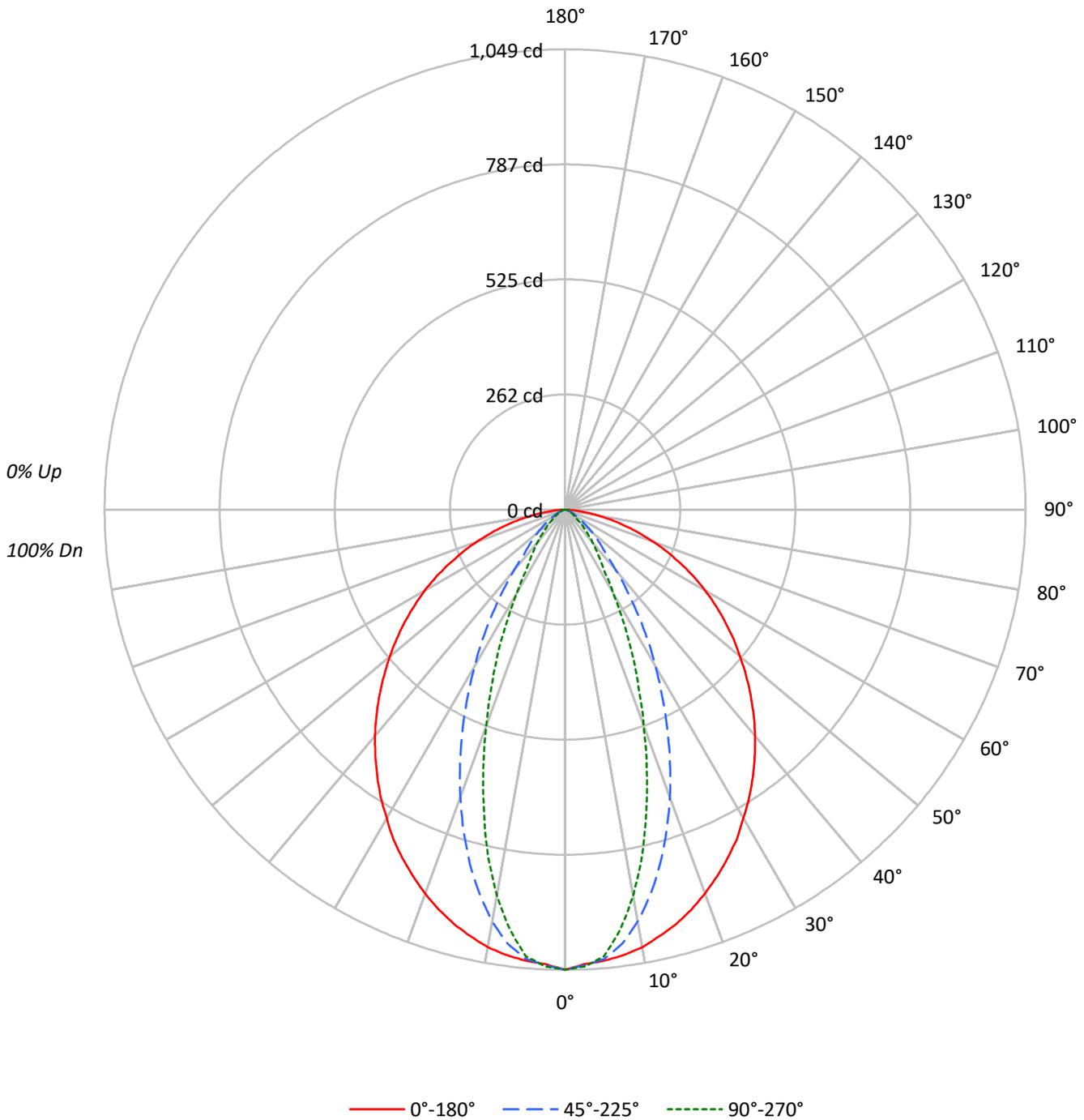
Test Method: LM-79-2019  
Report Number: P1055255  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2503-402-3)  
Test Lab: INNOVATION CENTER  
Issue Date: 7/25/2025  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: NEO-RAY  
Catalog Number: S122R3DR-S865D835-X4F0-XX-UDD-FLL-S  
Description: DEFINE 2, SILVER 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: 1201.8 lumens  
Efficiency: N/A  
Efficacy: 34.6 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





TEST NUMBER: P105255

CATALOG NUMBER: S122R3DR-S865D835-X4F0-XX-UDD-FLL-S

**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			100	
1	112	108	105	102	109	106	103	100	102	99	97	98	96	94	94	93	92	90			90	
2	104	98	93	88	102	96	91	87	93	89	85	90	86	83	87	84	82	80			80	
3	97	89	83	78	95	88	82	77	85	80	76	82	78	74	80	76	73	71			71	
4	91	81	74	69	89	80	74	69	78	72	68	76	71	67	74	70	66	64			64	
5	85	75	67	62	83	74	67	62	72	66	61	70	65	61	68	64	60	58			58	
6	80	69	62	56	78	68	61	56	66	60	56	65	59	55	63	59	55	53			53	
7	75	64	57	52	74	63	56	51	62	56	51	60	55	51	59	54	50	49			49	
8	71	59	52	47	69	59	52	47	58	51	47	56	51	47	55	50	47	45			45	
9	67	56	49	44	66	55	48	44	54	48	44	53	47	43	52	47	43	42			42	
10	63	52	45	41	62	52	45	41	51	45	41	50	44	40	49	44	40	39			39	

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

	0°	45°	90°
0°	19867	19867	19867
5°	19625	19553	19429
10°	19481	18344	17182
15°	19181	16409	14014
20°	18785	14069	10571
25°	18321	11525	7549
30°	17768	8996	4806
35°	17238	6599	3210
40°	16655	4449	2416
45°	16012	3132	1723
50°	15341	2387	1211
55°	14686	1655	892
60°	13974	1122	731
65°	12960	807	578
70°	11816	643	499
75°	10255	564	373
80°	8128	426	426
85°	4478	565	283

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 16012 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	95.9	8.0
10°-20°	235.3	19.6
20°-30°	268.8	22.4
30°-40°	228.0	19.0
40°-50°	170.1	14.2
50°-60°	109.9	9.1
60°-70°	61.3	5.1
70°-80°	26.9	2.2
80°-90°	5.6	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°	600.0	49.9
0°-40°	828.0	68.9
0°-60°	1108.0	92.2
0°-90°	1201.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1201.8	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1049	1049	1049	1049	1049	
5°	1032	1045	1028	1018	1022	98
15°	978	954	837	748	714	275
25°	876	774	551	404	361	403
35°	745	562	285	156	139	466
45°	598	355	117	76	64	461
55°	445	168	50	31	27	398
65°	289	62	18	14	13	287
75°	140	13	8	6	5	149
85°	21	1	3	1	1	29
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1048.6	1048.6	1048.6	1048.6	1048.6
2.5°	1037.0	1052.5	1039.6	1039.6	1042.2
5°	1031.9	1044.8	1028.1	1017.8	1021.6
7.5°	1024.2	1033.2	998.5	967.7	965.1
10°	1012.6	1016.5	953.5	906.0	893.1
12.5°	995.9	986.9	898.3	831.4	809.6
15°	977.9	953.5	836.6	747.9	714.5
17.5°	956.1	912.4	768.5	660.5	619.4
20°	931.7	870.0	697.8	569.3	524.3
22.5°	904.7	822.4	624.5	483.2	438.2
25°	876.4	773.6	551.3	403.5	361.1
27.5°	846.9	722.2	479.3	331.5	285.3
30°	812.2	669.5	411.2	262.2	219.7
32.5°	780.0	614.3	348.3	203.0	167.1
35°	745.3	561.6	285.3	155.5	138.8
37.5°	709.4	508.9	230.0	131.1	116.9
40°	673.4	456.2	179.9	110.5	97.7
42.5°	636.1	404.8	138.8	92.5	79.7
45°	597.6	354.7	116.9	75.8	64.3
47.5°	559.0	304.6	97.7	60.4	51.4
50°	520.5	257.0	81.0	47.5	41.1
52.5°	483.2	212.0	64.3	38.6	33.4
55°	444.6	168.3	50.1	30.8	27.0
57.5°	406.1	131.1	38.6	25.7	23.1
60°	368.8	98.9	29.6	20.6	19.3
62.5°	330.3	79.7	23.1	16.7	15.4
65°	289.1	61.7	18.0	14.1	12.9
67.5°	251.9	45.0	14.1	11.6	10.3
70°	213.3	30.8	11.6	10.3	9.0
72.5°	176.1	19.3	9.0	7.7	7.7
75°	140.1	12.9	7.7	6.4	5.1
77.5°	106.7	7.7	5.1	5.1	3.9
80°	74.5	5.1	3.9	3.9	3.9
82.5°	46.3	3.9	2.6	2.6	2.6
85°	20.6	1.3	2.6	1.3	1.3
87.5°	3.9	1.3	1.3	1.3	1.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)