

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: P1055588

Luminaire Tested: S123R3DR-S1165D927-X4F0-XX-UDD-FLL-S

Issue Date: 7/25/2025

**Test Information**

Test Method: LM-79-2019  
Report Number: P1055588  
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-S1165D927-X4F0-XX-UDD-FLL-S  
Description: DEFINE 3, SILVER 3-INCH REGRESSED DIRECT RECESSED HOUSING WITH FROSTED LENS  
CORE LIGHT ENGINE  
Light Source: 2700K CCT, 90 CRI LEDS  
Ballast/Driver: -

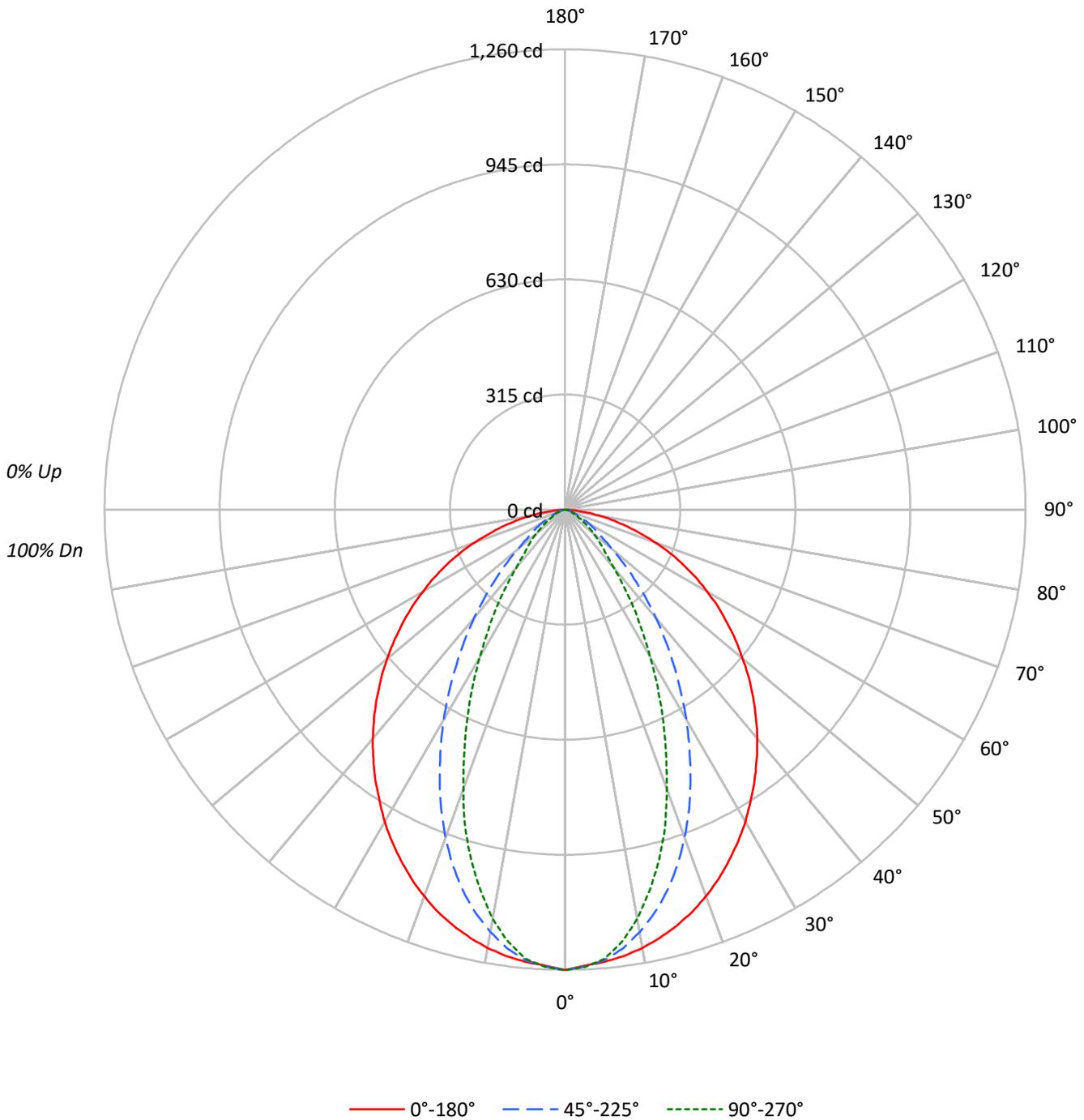
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 1752.9 lumens  
Efficiency: N/A  
Efficacy: 41.8 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					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	111	108	104	102	109	106	103	100	101	99	97	98	96	94	94	93	91	89				89
2	104	97	92	87	101	95	90	86	92	88	84	89	85	82	86	83	81	79				79
3	96	88	81	76	94	86	80	76	84	78	74	81	77	73	79	75	72	70				70
4	90	80	73	67	88	79	72	67	76	71	66	74	69	65	72	68	64	62				62
5	84	73	66	60	82	72	65	60	70	64	59	68	63	59	67	62	58	56				56
6	78	67	60	54	77	66	59	54	65	58	53	63	57	53	62	57	53	51				51
7	73	62	54	49	72	61	54	49	60	53	49	58	53	48	57	52	48	46				46
8	69	57	50	45	68	57	50	45	56	49	45	54	49	44	53	48	44	42				42
9	65	53	46	41	64	53	46	41	52	45	41	51	45	41	50	45	41	39				39
10	61	50	43	38	60	49	43	38	48	42	38	48	42	38	47	42	38	36				36

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

	0°	45°	90°
0°	15196	15196	15196
5°	15037	14979	14937
10°	14919	14377	13925
15°	14718	13480	12392
20°	14454	12263	10439
25°	14113	10791	8423
30°	13738	9248	6486
35°	13311	7631	4801
40°	12880	6073	3272
45°	12406	4542	2465
50°	11899	3160	1926
55°	11376	2310	1406
60°	10831	1729	1008
65°	10190	1158	785
70°	9222	842	631
75°	7956	610	503
80°	6388	500	417
85°	3306	498	332

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 12406 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	116.5	6.6
10°-20°	303.3	17.3
20°-30°	381.0	21.7
30°-40°	354.9	20.2
40°-50°	271.7	15.5
50°-60°	180.6	10.3
60°-70°	97.3	5.6
70°-80°	39.9	2.3
80°-90°	7.6	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°	800.8	45.7
0°-40°	1155.8	65.9
0°-60°	1608.0	91.7
0°-90°	1752.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1752.9	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1260	1260	1260	1260	1260	
5°	1242	1256	1238	1233	1234	118
15°	1179	1160	1080	1017	993	332
25°	1061	989	811	676	633	489
35°	904	771	518	367	326	565
45°	728	538	266	156	145	561
55°	541	313	110	76	67	485
65°	357	121	41	30	28	353
75°	171	29	13	12	11	183
85°	24	4	4	4	2	35
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1260.4	1260.4	1260.4	1260.4	1260.4
2.5°	1249.7	1265.2	1252.1	1253.3	1253.3
5°	1242.5	1255.7	1237.7	1233.0	1234.2
7.5°	1233.0	1241.3	1211.5	1195.9	1193.5
10°	1218.6	1221.0	1174.4	1146.9	1137.4
12.5°	1200.7	1192.3	1131.4	1086.0	1068.1
15°	1179.2	1160.1	1080.0	1016.7	992.8
17.5°	1155.3	1123.0	1021.5	939.1	910.4
20°	1126.6	1081.2	955.8	853.0	813.6
22.5°	1095.6	1037.0	886.5	764.6	720.4
25°	1060.9	989.2	811.2	676.2	633.2
27.5°	1025.1	937.9	737.1	592.6	548.4
30°	986.8	885.3	664.3	511.3	465.9
32.5°	945.0	827.9	589.0	436.1	390.7
35°	904.4	770.6	518.5	366.8	326.2
37.5°	861.4	713.3	450.4	305.9	260.5
40°	818.4	654.7	385.9	246.1	207.9
42.5°	773.0	596.2	325.0	195.9	166.1
45°	727.6	537.6	266.4	156.5	144.6
47.5°	682.2	479.1	215.1	135.0	123.1
50°	634.4	422.9	168.5	114.7	102.7
52.5°	589.0	366.8	131.4	94.4	83.6
55°	541.2	313.0	109.9	76.5	66.9
57.5°	497.0	258.1	90.8	59.7	52.6
60°	449.2	209.1	71.7	46.6	41.8
62.5°	403.8	163.7	55.0	37.0	33.5
65°	357.2	120.7	40.6	29.9	27.5
67.5°	310.6	87.2	31.1	23.9	22.7
70°	261.6	65.7	23.9	19.1	17.9
72.5°	215.1	46.6	17.9	15.5	14.3
75°	170.8	28.7	13.1	11.9	10.8
77.5°	131.4	16.7	9.6	9.6	8.4
80°	92.0	9.6	7.2	7.2	6.0
82.5°	56.2	6.0	4.8	4.8	4.8
85°	23.9	3.6	3.6	3.6	2.4
87.5°	3.6	1.2	1.2	1.2	1.2
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)