

Cooper Lighting Solutions Photometric Lab  
1121 Highway 74 South  
Peachtree City, GA 30269



Scaled data based on original data using  
LM-79-2024 Approved Method: Electrical and Photometric Measurements of Solid-  
State Lighting Products

Test Report Prepared for  
Cooper Lighting Solutions

Brand: NEO-RAY

Report Number: P1056368

Luminaire Tested: S125R3DR-S1090D850-X4F0-XX-UDD-F-S

Issue Date: 7/25/2025

**Test Information**

Test Method: LM-79-2024  
Report Number: P1056368  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2503-402-12)  
Test Lab: INNOVATION CENTER  
Issue Date: 7/25/2025  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: NEO-RAY  
Catalog Number: S125R3DR-S1090D850-X4F0-XX-UDD-F-S  
Description: DEFINE 5, SILVER 3-INCH REGRESSED DIRECT RECESSED HOUSING WITH FROSTED LENS  
CORE LIGHT ENGINE  
Light Source: 5000K CCT, 80 CRI LEDS  
Ballast/Driver: -

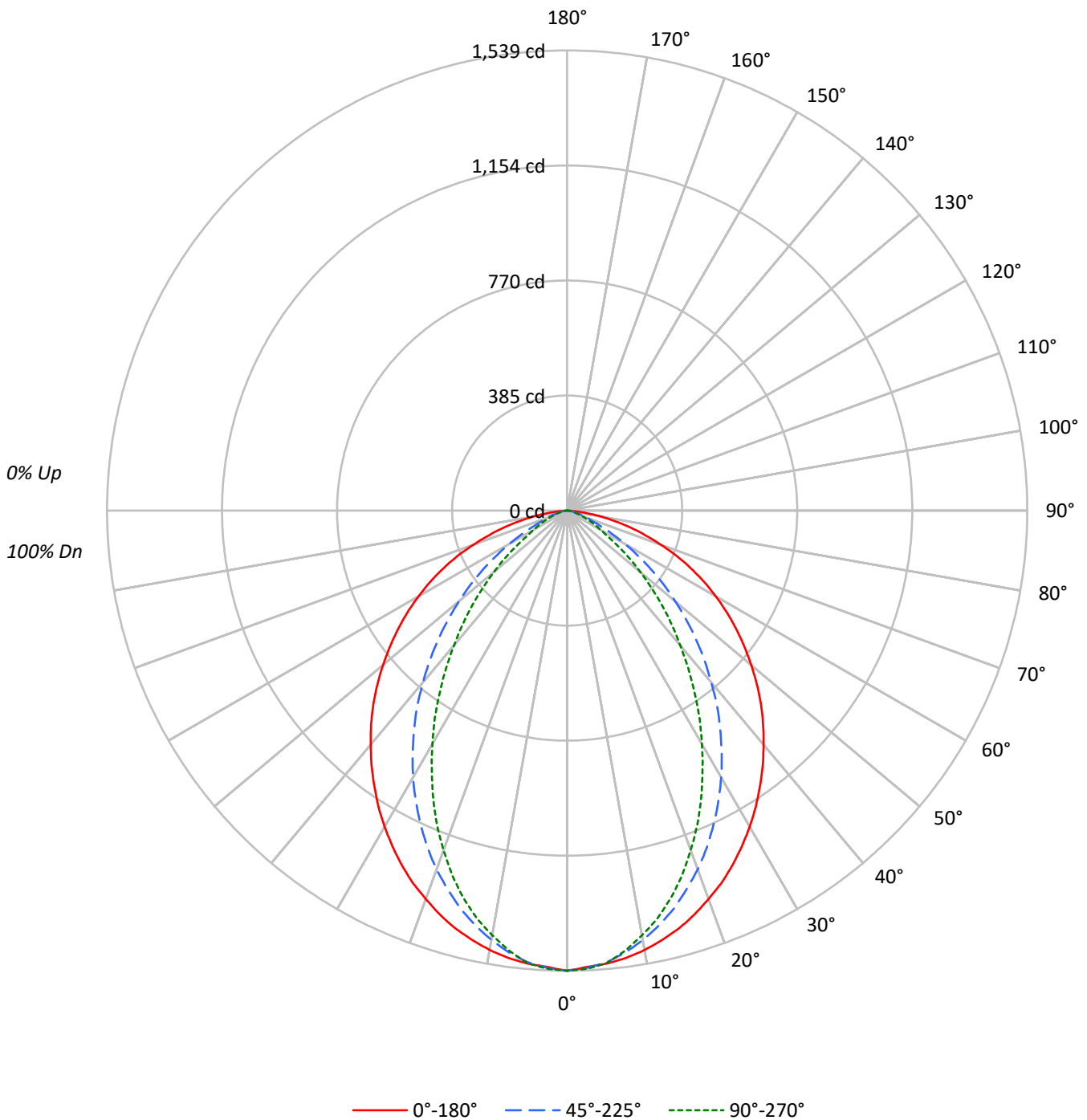
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 2781.9 lumens  
Efficiency: N/A  
Efficacy: 80.2 lumens/watt  
Spacing Criteria (0/90/45): 1.19 / 0.95 / 1.11  
Luminous Opening: Rectangular (W 0.39' x L: 3.9' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 34.7  
Input Voltage (V): 120  
Input Current (A<sub>in</sub>): 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	111	107	103	100	108	105	102	99	101	98	96	97	95	93	93	92	90	88
2	102	96	90	85	100	94	89	84	90	86	82	87	84	80	84	81	79	77
3	95	86	79	73	92	84	78	73	81	76	71	79	74	70	76	72	69	67
4	88	77	70	64	86	76	69	63	74	67	62	71	66	62	69	65	61	59
5	81	70	62	56	79	69	61	56	67	60	55	65	59	55	63	58	54	52
6	76	64	56	50	74	63	55	50	61	54	49	60	54	49	58	53	49	47
7	71	58	50	45	69	58	50	45	56	49	44	55	49	44	54	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	42	37	61	49	42	37	48	41	37	47	41	37	46	41	36	35
10	58	46	39	34	57	46	39	34	45	38	34	44	38	34	43	38	34	32

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

	0°	45°	90°
0°	10880	10880	10880
5°	10791	10760	10781
10°	10711	10465	10353
15°	10587	10086	9815
20°	10400	9606	9092
25°	10205	9037	8270
30°	9969	8411	7364
35°	9704	7699	6408
40°	9430	6918	5419
45°	9162	6099	4488
50°	8840	5188	3527
55°	8502	4215	2565
60°	8120	3143	1834
65°	7628	2074	1430
70°	6893	1443	1002
75°	5995	934	778
80°	4698	696	639
85°	2425	576	462

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 9162 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	143.4	5.2
10°-20°	389.8	14.0
20°-30°	538.9	19.4
30°-40°	571.0	20.5
40°-50°	498.4	17.9
50°-60°	354.5	12.7
60°-70°	197.1	7.1
70°-80°	75.8	2.7
80°-90°	13.1	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°	1072.0	38.5
0°-40°	1643.0	59.1
0°-60°	2495.9	89.7
0°-90°	2781.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2781.9	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1539	1539	1539	1539	1539	
5°	1521	1532	1516	1512	1519	144
15°	1446	1434	1378	1348	1341	407
25°	1308	1264	1159	1087	1060	602
35°	1124	1048	892	784	742	703
45°	916	807	610	487	449	706
55°	690	553	342	237	208	617
65°	456	299	124	91	86	451
75°	220	86	34	28	28	233
85°	30	9	7	6	6	44
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1539.1	1539.1	1539.1	1539.1	1539.1
2.5°	1527.7	1543.4	1530.6	1532.0	1533.4
5°	1520.6	1532.0	1516.3	1512.1	1519.2
7.5°	1509.2	1517.8	1490.7	1480.7	1485.0
10°	1492.1	1495.0	1457.9	1443.7	1442.2
12.5°	1470.7	1466.5	1420.9	1398.1	1396.6
15°	1446.5	1433.7	1378.1	1348.2	1341.1
17.5°	1416.6	1396.6	1328.2	1289.7	1278.3
20°	1382.4	1355.3	1276.9	1227.0	1208.5
22.5°	1348.2	1311.1	1219.9	1157.2	1137.3
25°	1308.3	1264.1	1158.6	1087.4	1060.3
27.5°	1265.5	1212.8	1095.9	1013.3	980.5
30°	1221.3	1160.1	1030.4	937.7	902.1
32.5°	1174.3	1104.5	962.0	860.8	823.7
35°	1124.4	1047.5	892.1	783.8	742.5
37.5°	1074.6	989.0	823.7	708.3	665.5
40°	1021.8	929.2	749.6	631.3	587.2
42.5°	970.5	867.9	679.8	558.7	518.7
45°	916.4	806.6	610.0	487.4	448.9
47.5°	860.8	742.5	540.1	420.4	381.9
50°	803.8	679.8	471.7	354.9	320.7
52.5°	746.8	617.1	407.6	292.2	262.2
55°	689.8	553.0	342.0	236.6	208.1
57.5°	632.8	490.2	280.8	185.3	159.6
60°	574.3	426.1	222.3	136.8	129.7
62.5°	515.9	363.4	172.4	112.6	106.9
65°	456.0	299.3	124.0	91.2	85.5
67.5°	396.2	240.8	89.8	69.8	65.6
70°	333.5	183.8	69.8	52.7	48.5
72.5°	273.6	132.5	49.9	38.5	37.1
75°	219.5	85.5	34.2	28.5	28.5
77.5°	165.3	51.3	24.2	21.4	21.4
80°	115.4	29.9	17.1	15.7	15.7
82.5°	69.8	15.7	11.4	10.0	10.0
85°	29.9	8.6	7.1	5.7	5.7
87.5°	5.7	2.9	2.9	2.9	2.9
90°	0.0	0.0	0.0	0.0	0.0



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**CIE UGR TABLE:**

Reflectances:											
Ceiling		0.7	0.7	0.5	0.5	0.3	0.7	0.7	0.5	0.5	0.3
Wall		0.5	0.3	0.5	0.3	0.3	0.5	0.3	0.5	0.3	0.3
Reference plane		0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
Room dimensions		Viewed crosswise					Viewed endwise				
X=2H	Y=2H	19.45	20.90	19.82	21.21	21.53	12.09	13.54	12.46	13.85	14.17
	3H	21.01	22.30	21.39	22.63	22.99	12.66	13.94	13.04	14.27	14.64
	4H	21.53	22.74	21.94	23.09	23.47	12.78	13.98	13.18	14.33	14.71
	6H	21.87	22.98	22.29	23.35	23.74	12.85	13.95	13.26	14.32	14.71
	8H	21.95	23.01	22.38	23.40	23.80	12.85	13.90	13.28	14.29	14.70
	12H	21.98	22.98	22.41	23.37	23.80	12.84	13.85	13.27	14.23	14.66
4H	2H	19.35	20.55	19.75	20.90	21.28	12.66	13.86	13.06	14.21	14.59
	3H	21.02	22.00	21.43	22.41	22.81	13.33	14.32	13.74	14.72	15.12
	4H	21.57	22.45	22.00	22.87	23.31	13.49	14.37	13.92	14.79	15.23
	6H	21.96	22.72	22.42	23.17	23.63	13.60	14.36	14.06	14.81	15.27
	8H	22.06	22.78	22.53	23.22	23.69	13.61	14.33	14.08	14.77	15.24
	12H	22.11	22.74	22.60	23.22	23.70	13.61	14.25	14.10	14.73	15.20
8H	4H	21.47	22.18	21.94	22.63	23.10	13.76	14.47	14.22	14.92	15.38
	6H	21.86	22.44	22.36	22.94	23.41	13.89	14.48	14.39	14.97	15.45
	8H	21.96	22.49	22.48	23.00	23.49	13.92	14.44	14.44	14.96	15.45
	12H	22.03	22.49	22.54	22.98	23.55	13.94	14.41	14.45	14.90	15.47
12H	4H	21.43	22.07	21.92	22.55	23.02	13.77	14.41	14.26	14.89	15.36
	6H	21.80	22.33	22.32	22.84	23.33	13.90	14.43	14.42	14.94	15.43
	8H	21.93	22.40	22.44	22.89	23.46	13.96	14.43	14.47	14.92	15.49