

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: P1056617

Luminaire Tested: S125R3DR-H850D930-X4F0-XX-UDD-F-S

Issue Date: 7/25/2025

**Test Information**

Test Method: LM-79-2024  
Report Number: P1056617  
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-H850D930-X4F0-XX-UDD-F-S  
Description: DEFINE 5, SILVER 3-INCH REGRESSED DIRECT RECESSED HOUSING WITH FROSTED LENS  
HIGH PERFORMANCE LIGHT ENGINE  
Light Source: 3000K CCT, 90 CRI LEDS  
Ballast/Driver: -

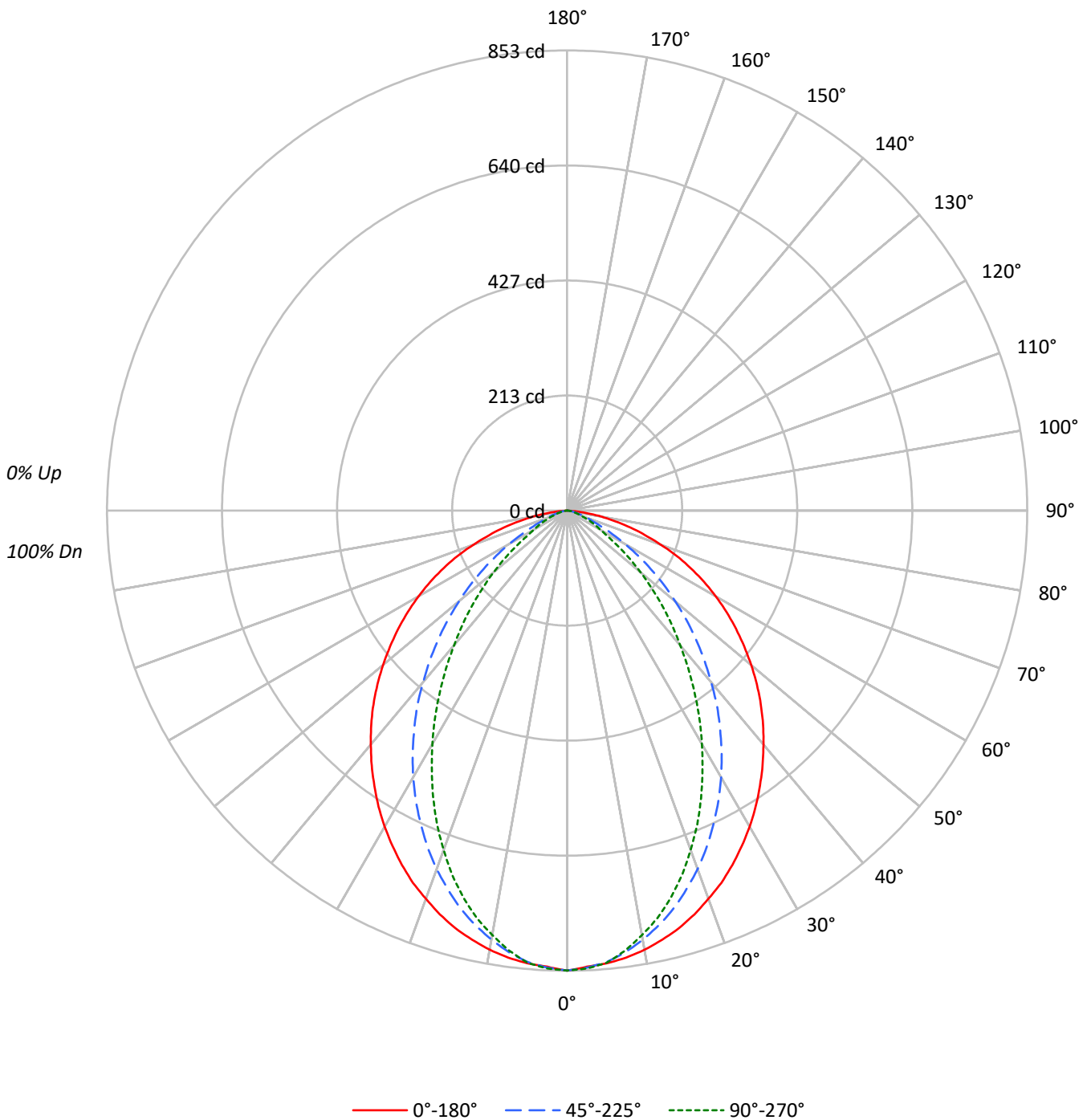
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 1541.1 lumens  
Efficiency: N/A  
Efficacy: 64.8 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): 23.8  
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

TEST NUMBER: P1056617

CATALOG NUMBER: S125R3DR-H850D930-X4F0-XX-UDD-F-S

### Luminous Intensity Polar Plot





TEST NUMBER: P1056617

CATALOG NUMBER: S125R3DR-H850D930-X4F0-XX-UDD-F-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	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°	6028	6028	6028
5°	5978	5961	5972
10°	5934	5798	5736
15°	5865	5588	5437
20°	5761	5322	5037
25°	5654	5007	4582
30°	5523	4659	4080
35°	5376	4265	3550
40°	5224	3833	3002
45°	5076	3378	2486
50°	4897	2874	1953
55°	4709	2336	1421
60°	4499	1742	1015
65°	4225	1149	793
70°	3818	800	554
75°	3321	516	432
80°	2605	387	354
85°	1346	316	260

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 5076 cd/sqm

TEST NUMBER: P1056617

CATALOG NUMBER: S125R3DR-H850D930-X4F0-XX-UDD-F-S

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	79.4	5.2
10°-20°	215.9	14.0
20°-30°	298.6	19.4
30°-40°	316.3	20.5
40°-50°	276.1	17.9
50°-60°	196.4	12.7
60°-70°	109.2	7.1
70°-80°	42.0	2.7
80°-90°	7.3	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°	593.9	38.5
0°-40°	910.2	59.1
0°-60°	1382.7	89.7
0°-90°	1541.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1541.1	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	853	853	853	853	853	
5°	842	849	840	838	842	80
15°	801	794	764	747	743	226
25°	725	700	642	602	587	334
35°	623	580	494	434	411	390
45°	508	447	338	270	249	391
55°	382	306	190	131	115	342
65°	253	166	69	50	47	250
75°	122	47	19	16	16	129
85°	17	5	4	3	3	25
90°	0	0	0	0	0	



TEST NUMBER: P1056617

CATALOG NUMBER: S125R3DR-H850D930-X4F0-XX-UDD-F-S

**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	852.7	852.7	852.7	852.7	852.7
2.5°	846.4	855.0	847.9	848.7	849.5
5°	842.4	848.7	840.0	837.7	841.6
7.5°	836.1	840.8	825.8	820.3	822.7
10°	826.6	828.2	807.7	799.8	799.0
12.5°	814.8	812.4	787.1	774.5	773.7
15°	801.4	794.2	763.5	746.9	742.9
17.5°	784.8	773.7	735.8	714.5	708.2
20°	765.8	750.8	707.4	679.8	669.5
22.5°	746.9	726.3	675.8	641.1	630.0
25°	724.8	700.3	641.9	602.4	587.4
27.5°	701.1	671.9	607.1	561.3	543.2
30°	676.6	642.7	570.8	519.5	499.8
32.5°	650.6	611.9	532.9	476.9	456.3
35°	622.9	580.3	494.2	434.2	411.3
37.5°	595.3	547.9	456.3	392.4	368.7
40°	566.1	514.8	415.3	349.8	325.3
42.5°	537.7	480.8	376.6	309.5	287.4
45°	507.7	446.9	337.9	270.0	248.7
47.5°	476.9	411.3	299.2	232.9	211.6
50°	445.3	376.6	261.3	196.6	177.6
52.5°	413.7	341.9	225.8	161.8	145.3
55°	382.1	306.3	189.5	131.1	115.3
57.5°	350.5	271.6	155.5	102.6	88.4
60°	318.2	236.1	123.2	75.8	71.8
62.5°	285.8	201.3	95.5	62.4	59.2
65°	252.6	165.8	68.7	50.5	47.4
67.5°	219.5	133.4	49.7	38.7	36.3
70°	184.7	101.8	38.7	29.2	26.8
72.5°	151.6	73.4	27.6	21.3	20.5
75°	121.6	47.4	18.9	15.8	15.8
77.5°	91.6	28.4	13.4	11.8	11.8
80°	64.0	16.6	9.5	8.7	8.7
82.5°	38.7	8.7	6.3	5.5	5.5
85°	16.6	4.7	3.9	3.2	3.2
87.5°	3.2	1.6	1.6	1.6	1.6
90°	0.0	0.0	0.0	0.0	0.0



TEST NUMBER: P1056617  
 CATALOG NUMBER: S125R3DR-H850D930-X4F0-XX-UDD-F-S

**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	17.40	18.85	17.77	19.16	19.48	10.04	11.48	10.40	11.80	12.11
	3H	18.96	20.25	19.34	20.58	20.94	10.60	11.89	10.98	12.22	12.58
	4H	19.48	20.69	19.88	21.04	21.42	10.73	11.93	11.13	12.28	12.66
	6H	19.82	20.93	20.23	21.30	21.69	10.79	11.90	11.20	12.27	12.66
	8H	19.90	20.95	20.33	21.34	21.75	10.80	11.85	11.22	12.24	12.64
	12H	19.93	20.93	20.36	21.32	21.74	10.79	11.79	11.22	12.17	12.60
4H	2H	17.30	18.50	17.70	18.85	19.23	10.60	11.81	11.00	12.16	12.54
	3H	18.97	19.95	19.38	20.35	20.76	11.28	12.26	11.69	12.67	13.07
	4H	19.51	20.40	19.95	20.82	21.26	11.43	12.32	11.87	12.73	13.18
	6H	19.91	20.67	20.37	21.12	21.58	11.54	12.31	12.00	12.75	13.22
	8H	20.01	20.73	20.48	21.17	21.64	11.56	12.27	12.02	12.72	13.18
	12H	20.06	20.69	20.54	21.17	21.65	11.56	12.19	12.04	12.67	13.15
8H	4H	19.42	20.13	19.88	20.58	21.05	11.70	12.42	12.17	12.86	13.33
	6H	19.81	20.39	20.30	20.88	21.36	11.84	12.42	12.34	12.92	13.39
	8H	19.91	20.44	20.43	20.95	21.44	11.86	12.39	12.38	12.90	13.39
	12H	19.98	20.44	20.49	20.93	21.50	11.89	12.35	12.40	12.84	13.41
12H	4H	19.38	20.01	19.87	20.50	20.97	11.72	12.35	12.20	12.83	13.30
	6H	19.75	20.28	20.27	20.79	21.28	11.85	12.37	12.37	12.89	13.38
	8H	19.88	20.34	20.39	20.84	21.41	11.91	12.37	12.42	12.86	13.43