

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



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: P1056527

Luminaire Tested: S125R3DR-H1270D840-X4F0-XX-UDD-FLL-S

Issue Date: 7/25/2025

**Test Information**

Test Method: LM-79-2019  
Report Number: P1056527  
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-H1270D840-X4F0-XX-UDD-FLL-S  
Description: DEFINE 5, SILVER 3-INCH REGRESSED DIRECT RECESSED HOUSING WITH FROSTED LENS  
HIGH PERFORMANCE LIGHT ENGINE  
Light Source: 4000K CCT, 80 CRI LEDS  
Ballast/Driver: -

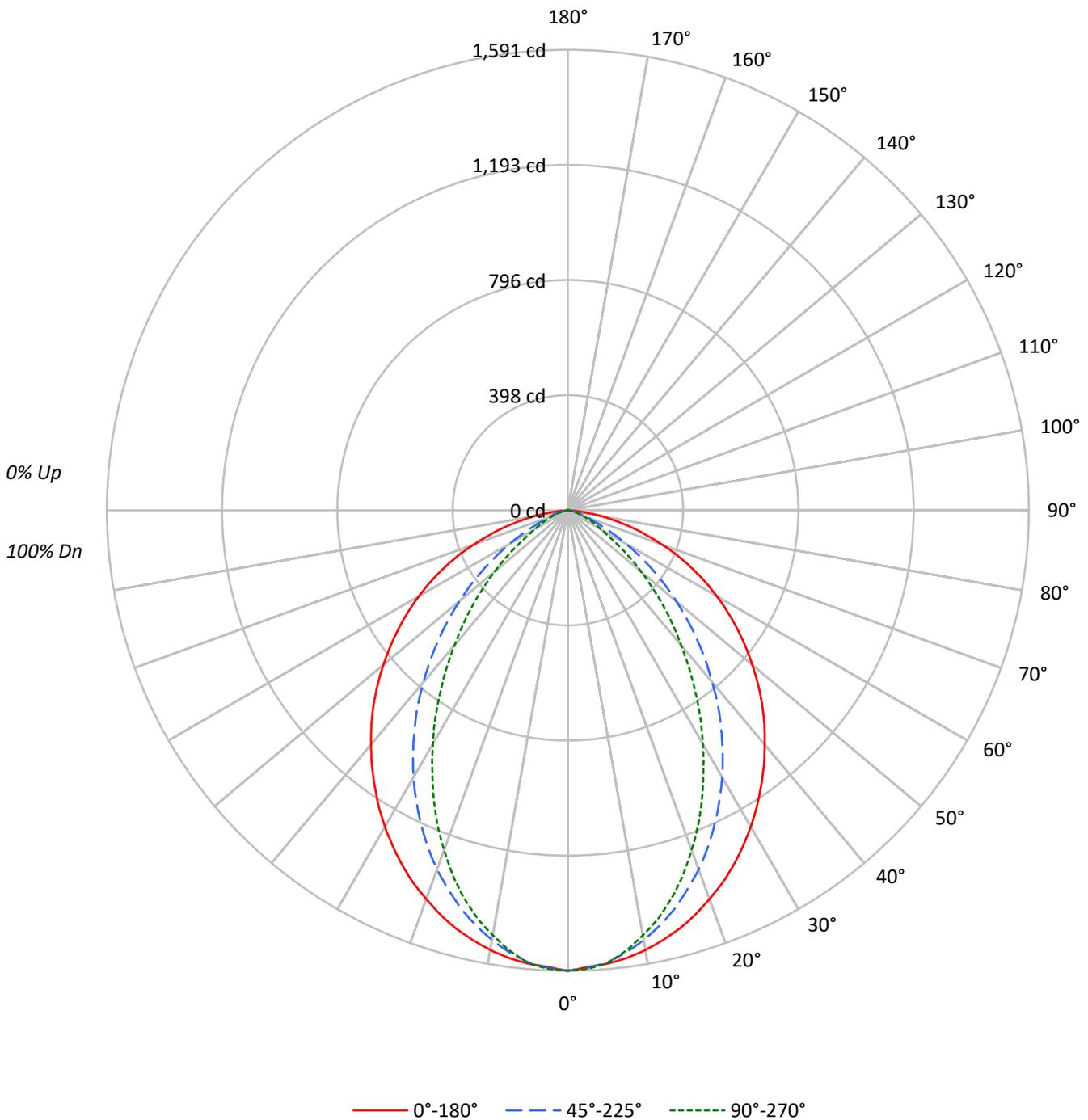
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 2875.9 lumens  
Efficiency: N/A  
Efficacy: 78.6 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): 36.6  
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	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°	11248	11248	11248
5°	11155	11124	11145
10°	11073	10819	10703
15°	10944	10427	10147
20°	10751	9931	9399
25°	10550	9343	8550
30°	10307	8695	7613
35°	10032	7960	6624
40°	9748	7151	5602
45°	9471	6304	4640
50°	9138	5364	3646
55°	8789	4358	2651
60°	8394	3249	1896
65°	7885	2144	1479
70°	7125	1492	1036
75°	6198	967	806
80°	4857	721	660
85°	2506	600	479

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 9471 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	148.2	5.2
10°-20°	402.9	14.0
20°-30°	557.1	19.4
30°-40°	590.3	20.5
40°-50°	515.2	17.9
50°-60°	366.4	12.7
60°-70°	203.8	7.1
70°-80°	78.3	2.7
80°-90°	13.6	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°	1108.3	38.5
0°-40°	1698.5	59.1
0°-60°	2580.2	89.7
0°-90°	2875.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2875.9	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1591	1591	1591	1591	1591	
5°	1572	1584	1568	1563	1570	149
15°	1495	1482	1425	1394	1386	421
25°	1352	1307	1198	1124	1096	623
35°	1162	1083	922	810	768	727
45°	947	834	631	504	464	730
55°	713	572	354	245	215	638
65°	471	309	128	94	88	466
75°	227	88	35	30	30	241
85°	31	9	7	6	6	46
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1591.1	1591.1	1591.1	1591.1	1591.1
2.5°	1579.4	1595.6	1582.3	1583.8	1585.2
5°	1572.0	1583.8	1567.6	1563.1	1570.5
7.5°	1560.2	1569.0	1541.0	1530.7	1535.2
10°	1542.5	1545.5	1507.2	1492.4	1491.0
12.5°	1520.4	1516.0	1468.9	1445.3	1443.8
15°	1495.4	1482.1	1424.7	1393.7	1386.4
17.5°	1464.4	1443.8	1373.1	1333.3	1321.5
20°	1429.1	1401.1	1320.1	1268.5	1249.3
22.5°	1393.7	1355.4	1261.1	1196.3	1175.7
25°	1352.5	1306.8	1197.8	1124.1	1096.1
27.5°	1308.3	1253.8	1132.9	1047.5	1013.6
30°	1262.6	1199.2	1065.2	969.4	932.6
32.5°	1214.0	1141.8	994.5	889.9	851.6
35°	1162.4	1082.9	922.3	810.3	767.6
37.5°	1110.8	1022.5	851.6	732.2	688.0
40°	1056.3	960.6	774.9	652.7	607.0
42.5°	1003.3	897.2	702.8	577.5	536.3
45°	947.3	833.9	630.6	503.9	464.1
47.5°	889.9	767.6	558.4	434.6	394.8
50°	830.9	702.8	487.7	366.8	331.5
52.5°	772.0	637.9	421.4	302.0	271.1
55°	713.1	571.6	353.6	244.6	215.1
57.5°	654.1	506.8	290.2	191.5	165.0
60°	593.7	440.5	229.8	141.4	134.1
62.5°	533.3	375.7	178.3	116.4	110.5
65°	471.4	309.4	128.2	94.3	88.4
67.5°	409.6	249.0	92.8	72.2	67.8
70°	344.7	190.1	72.2	54.5	50.1
72.5°	282.9	137.0	51.6	39.8	38.3
75°	226.9	88.4	35.4	29.5	29.5
77.5°	170.9	53.0	25.0	22.1	22.1
80°	119.3	30.9	17.7	16.2	16.2
82.5°	72.2	16.2	11.8	10.3	10.3
85°	30.9	8.8	7.4	5.9	5.9
87.5°	5.9	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	19.57	21.02	19.94	21.33	21.64	12.21	13.65	12.57	13.97	14.28
	3H	21.13	22.42	21.51	22.74	23.11	12.77	14.06	13.15	14.39	14.75
	4H	21.65	22.85	22.05	23.20	23.58	12.90	14.10	13.30	14.45	14.83
	6H	21.99	23.09	22.40	23.46	23.86	12.96	14.07	13.37	14.44	14.83
	8H	22.07	23.12	22.50	23.51	23.91	12.97	14.02	13.39	14.41	14.81
	12H	22.09	23.10	22.53	23.48	23.91	12.96	13.96	13.39	14.34	14.77
4H	2H	19.47	20.67	19.87	21.02	21.40	12.77	13.97	13.17	14.32	14.70
	3H	21.13	22.12	21.54	22.52	22.92	13.45	14.43	13.86	14.83	15.24
	4H	21.68	22.57	22.12	22.98	23.42	13.60	14.49	14.04	14.90	15.34
	6H	22.08	22.84	22.54	23.28	23.75	13.71	14.48	14.17	14.92	15.39
	8H	22.18	22.89	22.65	23.34	23.81	13.73	14.44	14.19	14.89	15.35
	12H	22.23	22.86	22.71	23.34	23.81	13.73	14.36	14.21	14.84	15.31
8H	4H	21.59	22.30	22.05	22.74	23.21	13.87	14.59	14.34	15.03	15.50
	6H	21.97	22.56	22.47	23.05	23.53	14.01	14.59	14.51	15.09	15.56
	8H	22.08	22.60	22.60	23.12	23.61	14.03	14.56	14.55	15.07	15.56
	12H	22.14	22.61	22.66	23.10	23.67	14.06	14.52	14.57	15.01	15.58
12H	4H	21.55	22.18	22.03	22.66	23.14	13.89	14.52	14.37	15.00	15.47
	6H	21.92	22.44	22.44	22.96	23.45	14.02	14.54	14.54	15.06	15.55
	8H	22.05	22.51	22.56	23.00	23.57	14.08	14.54	14.59	15.03	15.60