

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: P1056518

Luminaire Tested: S125R3DR-H1090D950-X4F0-XX-UDD-FLL-S

Issue Date: 7/25/2025

**Test Information**

Test Method: LM-79-2019  
Report Number: P1056518  
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-H1090D950-X4F0-XX-UDD-FLL-S  
Description: DEFINE 5, SILVER 3-INCH REGRESSED DIRECT RECESSED HOUSING WITH FROSTED LENS  
HIGH PERFORMANCE LIGHT ENGINE  
Light Source: 5000K CCT, 90 CRI LEDS  
Ballast/Driver: -

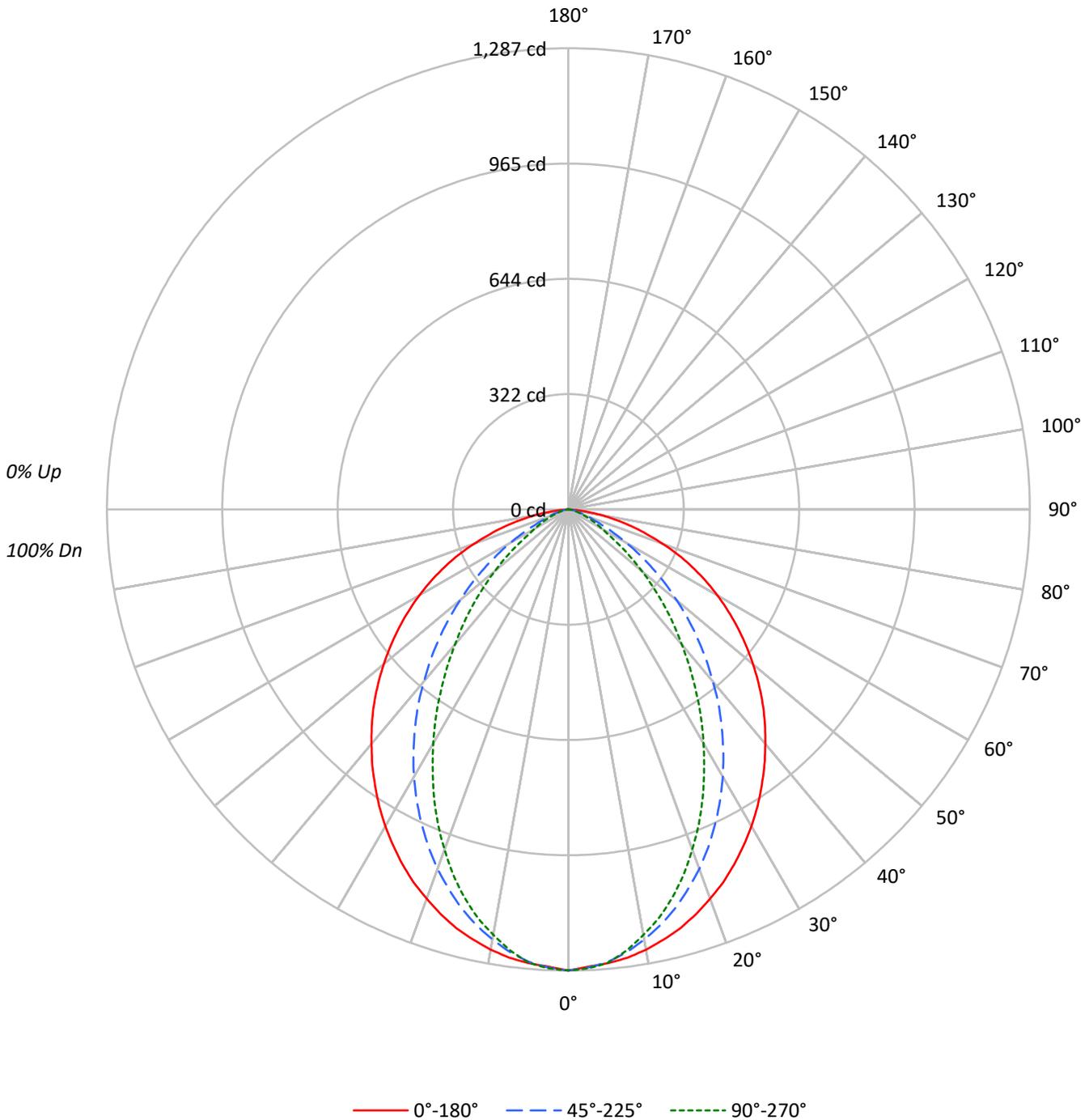
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 2325.6 lumens  
Efficiency: N/A  
Efficacy: 75.3 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): 30.9  
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	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°	9096	9096	9096
5°	9021	8995	9012
10°	8954	8749	8655
15°	8851	8432	8205
20°	8694	8031	7601
25°	8531	7555	6914
30°	8334	7032	6157
35°	8112	6436	5357
40°	7883	5783	4530
45°	7659	5098	3752
50°	7390	4338	2949
55°	7107	3524	2143
60°	6788	2628	1533
65°	6377	1735	1196
70°	5763	1207	837
75°	5012	781	650
80°	3929	582	533
85°	2028	487	389

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 7659 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	119.8	5.2
10°-20°	325.8	14.0
20°-30°	450.5	19.4
30°-40°	477.3	20.5
40°-50°	416.6	17.9
50°-60°	296.3	12.7
60°-70°	164.8	7.1
70°-80°	63.4	2.7
80°-90°	11.0	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°	896.2	38.5
0°-40°	1373.6	59.1
0°-60°	2086.5	89.7
0°-90°	2325.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2325.6	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1287	1287	1287	1287	1287	
5°	1271	1281	1268	1264	1270	121
15°	1209	1198	1152	1127	1121	341
25°	1094	1057	969	909	886	504
35°	940	876	746	655	621	588
45°	766	674	510	408	375	591
55°	577	462	286	198	174	516
65°	381	250	104	76	72	377
75°	184	72	29	24	24	194
85°	25	7	6	5	5	37
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1286.7	1286.7	1286.7	1286.7	1286.7
2.5°	1277.2	1290.3	1279.6	1280.8	1281.9
5°	1271.2	1280.8	1267.6	1264.1	1270.0
7.5°	1261.7	1268.8	1246.2	1237.9	1241.4
10°	1247.4	1249.8	1218.8	1206.9	1205.7
12.5°	1229.5	1225.9	1187.8	1168.8	1167.6
15°	1209.3	1198.5	1152.1	1127.1	1121.1
17.5°	1184.2	1167.6	1110.4	1078.2	1068.7
20°	1155.7	1133.0	1067.5	1025.8	1010.3
22.5°	1127.1	1096.1	1019.8	967.4	950.7
25°	1093.7	1056.8	968.6	909.0	886.4
27.5°	1058.0	1013.9	916.2	847.1	819.7
30°	1021.0	969.8	861.4	783.9	754.2
32.5°	981.7	923.3	804.2	719.6	688.6
35°	940.0	875.7	745.8	655.3	620.7
37.5°	898.3	826.8	688.6	592.1	556.4
40°	854.2	776.8	626.7	527.8	490.9
42.5°	811.3	725.6	568.3	467.0	433.7
45°	766.1	674.3	509.9	407.5	375.3
47.5°	719.6	620.7	451.5	351.5	319.3
50°	671.9	568.3	394.4	296.7	268.1
52.5°	624.3	515.9	340.7	244.2	219.2
55°	576.6	462.3	285.9	197.8	173.9
57.5°	529.0	409.8	234.7	154.9	133.4
60°	480.1	356.2	185.9	114.4	108.4
62.5°	431.3	303.8	144.2	94.1	89.4
65°	381.2	250.2	103.7	76.2	71.5
67.5°	331.2	201.3	75.1	58.4	54.8
70°	278.8	153.7	58.4	44.1	40.5
72.5°	228.7	110.8	41.7	32.2	31.0
75°	183.5	71.5	28.6	23.8	23.8
77.5°	138.2	42.9	20.3	17.9	17.9
80°	96.5	25.0	14.3	13.1	13.1
82.5°	58.4	13.1	9.5	8.3	8.3
85°	25.0	7.1	6.0	4.8	4.8
87.5°	4.8	2.4	2.4	2.4	2.4
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	18.83	20.28	19.20	20.59	20.90	11.47	12.92	11.84	13.23	13.54
	3H	20.39	21.68	20.77	22.01	22.37	12.03	13.32	12.41	13.65	14.01
	4H	20.91	22.11	21.31	22.46	22.84	12.16	13.36	12.56	13.71	14.09
	6H	21.25	22.36	21.66	22.73	23.12	12.22	13.33	12.64	13.70	14.09
	8H	21.33	22.38	21.76	22.77	23.18	12.23	13.28	12.66	13.67	14.07
	12H	21.36	22.36	21.79	22.74	23.17	12.22	13.22	12.65	13.61	14.04
4H	2H	18.73	19.93	19.13	20.28	20.66	12.04	13.24	12.44	13.59	13.97
	3H	20.40	21.38	20.81	21.78	22.19	12.71	13.70	13.12	14.10	14.50
	4H	20.94	21.83	21.38	22.24	22.69	12.87	13.75	13.30	14.17	14.61
	6H	21.34	22.10	21.80	22.55	23.01	12.98	13.74	13.44	14.19	14.65
	8H	21.44	22.15	21.91	22.60	23.07	12.99	13.70	13.46	14.15	14.62
	12H	21.49	22.12	21.97	22.60	23.08	12.99	13.62	13.48	14.10	14.58
8H	4H	20.85	21.56	21.31	22.01	22.48	13.14	13.85	13.60	14.29	14.76
	6H	21.23	21.82	21.73	22.31	22.79	13.27	13.85	13.77	14.35	14.83
	8H	21.34	21.87	21.86	22.38	22.87	13.30	13.82	13.81	14.33	14.82
	12H	21.41	21.87	21.92	22.36	22.93	13.32	13.78	13.83	14.28	14.84
12H	4H	20.81	21.44	21.30	21.93	22.40	13.15	13.78	13.63	14.26	14.74
	6H	21.18	21.71	21.70	22.22	22.71	13.28	13.81	13.80	14.32	14.81
	8H	21.31	21.77	21.82	22.27	22.83	13.34	13.80	13.85	14.30	14.86