

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: P1056536

Luminaire Tested: S125R3DR-H1270D930-X4F0-XX-UDD-FLL-S

Issue Date: 7/25/2025

**Test Information**

Test Method: LM-79-2019  
Report Number: P1056536  
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-H1270D930-X4F0-XX-UDD-FLL-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: -

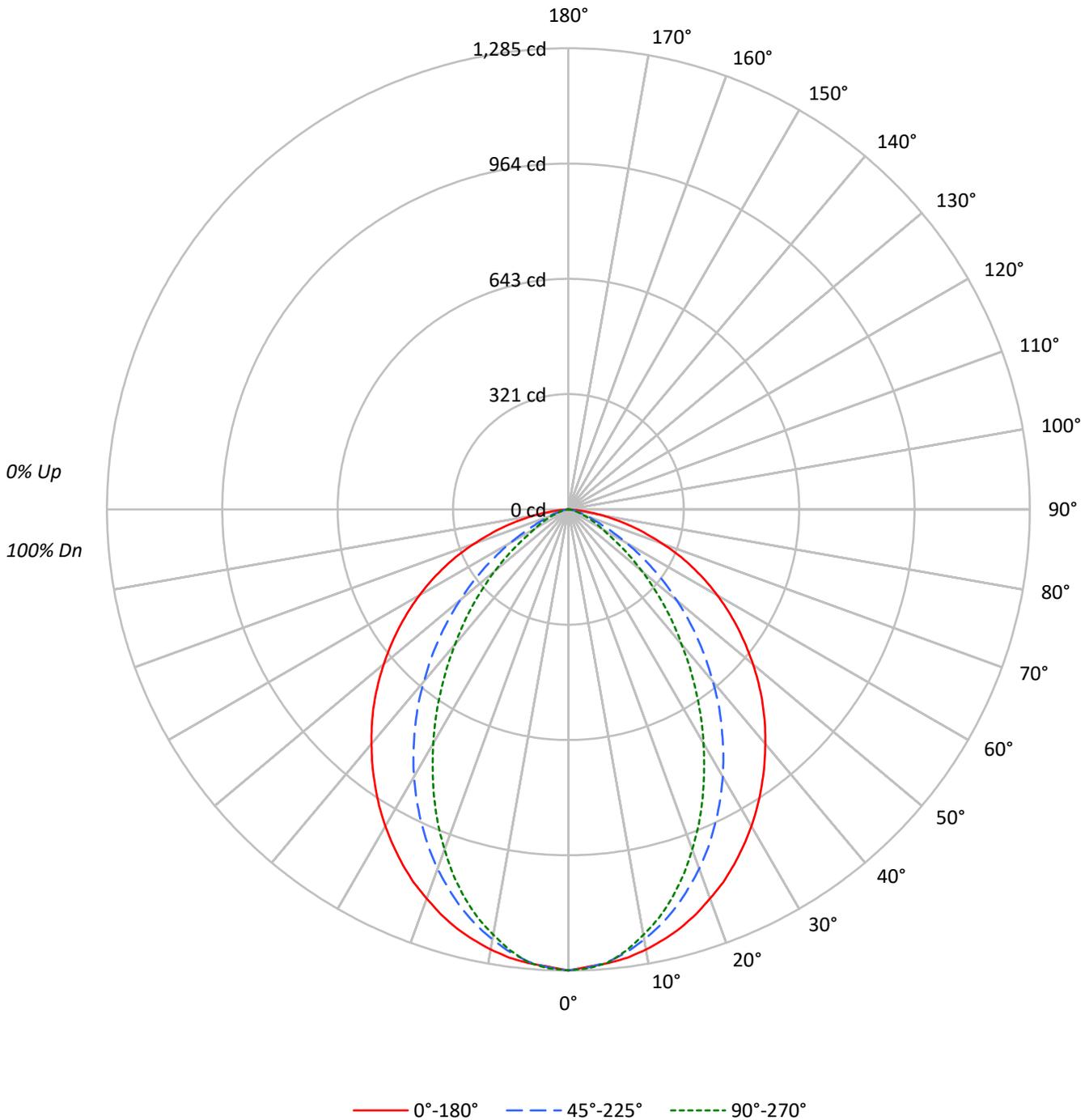
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 2321.8 lumens  
Efficiency: N/A  
Efficacy: 63.4 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°	9081	9081	9081
5°	9006	8980	8997
10°	8939	8735	8641
15°	8836	8418	8191
20°	8679	8017	7588
25°	8517	7543	6902
30°	8321	7020	6146
35°	8099	6426	5348
40°	7870	5773	4522
45°	7646	5090	3746
50°	7377	4330	2943
55°	7096	3519	2141
60°	6777	2624	1530
65°	6366	1731	1194
70°	5752	1205	835
75°	5004	778	650
80°	3920	582	533
85°	2028	479	389

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 7646 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	119.6	5.2
10°-20°	325.3	14.0
20°-30°	449.8	19.4
30°-40°	476.6	20.5
40°-50°	416.0	17.9
50°-60°	295.8	12.7
60°-70°	164.5	7.1
70°-80°	63.2	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°	894.7	38.5
0°-40°	1371.3	59.1
0°-60°	2083.1	89.7
0°-90°	2321.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2321.8	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1285	1285	1285	1285	1285	
5°	1269	1279	1266	1262	1268	120
15°	1207	1197	1150	1125	1119	340
25°	1092	1055	967	908	885	503
35°	938	874	745	654	620	587
45°	765	673	509	407	375	590
55°	576	462	286	197	174	515
65°	381	250	104	76	71	376
75°	183	71	28	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°	1284.6	1284.6	1284.6	1284.6	1284.6
2.5°	1275.1	1288.1	1277.4	1278.6	1279.8
5°	1269.1	1278.6	1265.5	1262.0	1267.9
7.5°	1259.6	1266.7	1244.1	1235.8	1239.4
10°	1245.3	1247.7	1216.8	1204.9	1203.7
12.5°	1227.5	1223.9	1185.9	1166.8	1165.6
15°	1207.3	1196.6	1150.2	1125.2	1119.2
17.5°	1182.3	1165.6	1108.5	1076.4	1066.9
20°	1153.7	1131.1	1065.7	1024.1	1008.6
22.5°	1125.2	1094.3	1018.1	965.8	949.2
25°	1091.9	1055.0	967.0	907.5	884.9
27.5°	1056.2	1012.2	914.7	845.7	818.3
30°	1019.3	968.2	860.0	782.6	752.9
32.5°	980.1	921.8	802.9	718.4	687.5
35°	938.5	874.2	744.6	654.2	619.7
37.5°	896.8	825.5	687.5	591.1	555.5
40°	852.8	775.5	625.6	526.9	490.0
42.5°	810.0	724.4	567.4	466.3	433.0
45°	764.8	673.2	509.1	406.8	374.7
47.5°	718.4	619.7	450.8	350.9	318.8
50°	670.8	567.4	393.7	296.2	267.6
52.5°	623.3	515.0	340.2	243.8	218.9
55°	575.7	461.5	285.5	197.4	173.7
57.5°	528.1	409.2	234.3	154.6	133.2
60°	479.3	355.6	185.6	114.2	108.2
62.5°	430.6	303.3	143.9	94.0	89.2
65°	380.6	249.8	103.5	76.1	71.4
67.5°	330.7	201.0	74.9	58.3	54.7
70°	278.3	153.4	58.3	44.0	40.4
72.5°	228.4	110.6	41.6	32.1	30.9
75°	183.2	71.4	28.5	23.8	23.8
77.5°	138.0	42.8	20.2	17.8	17.8
80°	96.3	25.0	14.3	13.1	13.1
82.5°	58.3	13.1	9.5	8.3	8.3
85°	25.0	7.1	5.9	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	20.27	19.19	20.59	20.90	11.46	12.91	11.83	13.22	13.54
	3H	20.39	21.67	20.76	22.00	22.36	12.03	13.31	12.41	13.64	14.01
	4H	20.91	22.11	21.31	22.46	22.84	12.15	13.35	12.55	13.70	14.08
	6H	21.24	22.35	21.66	22.72	23.11	12.22	13.32	12.63	13.69	14.08
	8H	21.33	22.38	21.76	22.77	23.17	12.22	13.27	12.65	13.66	14.07
	12H	21.35	22.36	21.78	22.74	23.17	12.21	13.22	12.64	13.60	14.03
4H	2H	18.72	19.93	19.12	20.28	20.66	12.03	13.23	12.43	13.58	13.96
	3H	20.39	21.38	20.80	21.78	22.18	12.70	13.69	13.11	14.09	14.49
	4H	20.94	21.82	21.37	22.24	22.68	12.86	13.74	13.29	14.16	14.60
	6H	21.33	22.10	21.79	22.54	23.00	12.97	13.73	13.43	14.18	14.64
	8H	21.44	22.15	21.90	22.60	23.06	12.98	13.69	13.45	14.14	14.61
	12H	21.48	22.12	21.97	22.60	23.07	12.98	13.62	13.47	14.10	14.57
8H	4H	20.84	21.56	21.31	22.00	22.47	13.13	13.84	13.59	14.29	14.76
	6H	21.23	21.81	21.73	22.31	22.79	13.26	13.85	13.76	14.34	14.82
	8H	21.34	21.86	21.85	22.37	22.86	13.29	13.81	13.81	14.33	14.82
	12H	21.40	21.86	21.91	22.36	22.93	13.31	13.78	13.82	14.27	14.84
12H	4H	20.81	21.44	21.29	21.92	22.39	13.14	13.78	13.63	14.26	14.73
	6H	21.18	21.70	21.69	22.21	22.70	13.27	13.80	13.79	14.31	14.80
	8H	21.30	21.77	21.82	22.26	22.83	13.33	13.80	13.84	14.29	14.86