

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: P1056494

Luminaire Tested: S125R3DR-H1090D830-X4F0-XX-UDD-FLL-S

Issue Date: 7/25/2025

**Test Information**

Test Method: LM-79-2019  
Report Number: P1056494  
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-H1090D830-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, 80 CRI LEDS  
Ballast/Driver: -

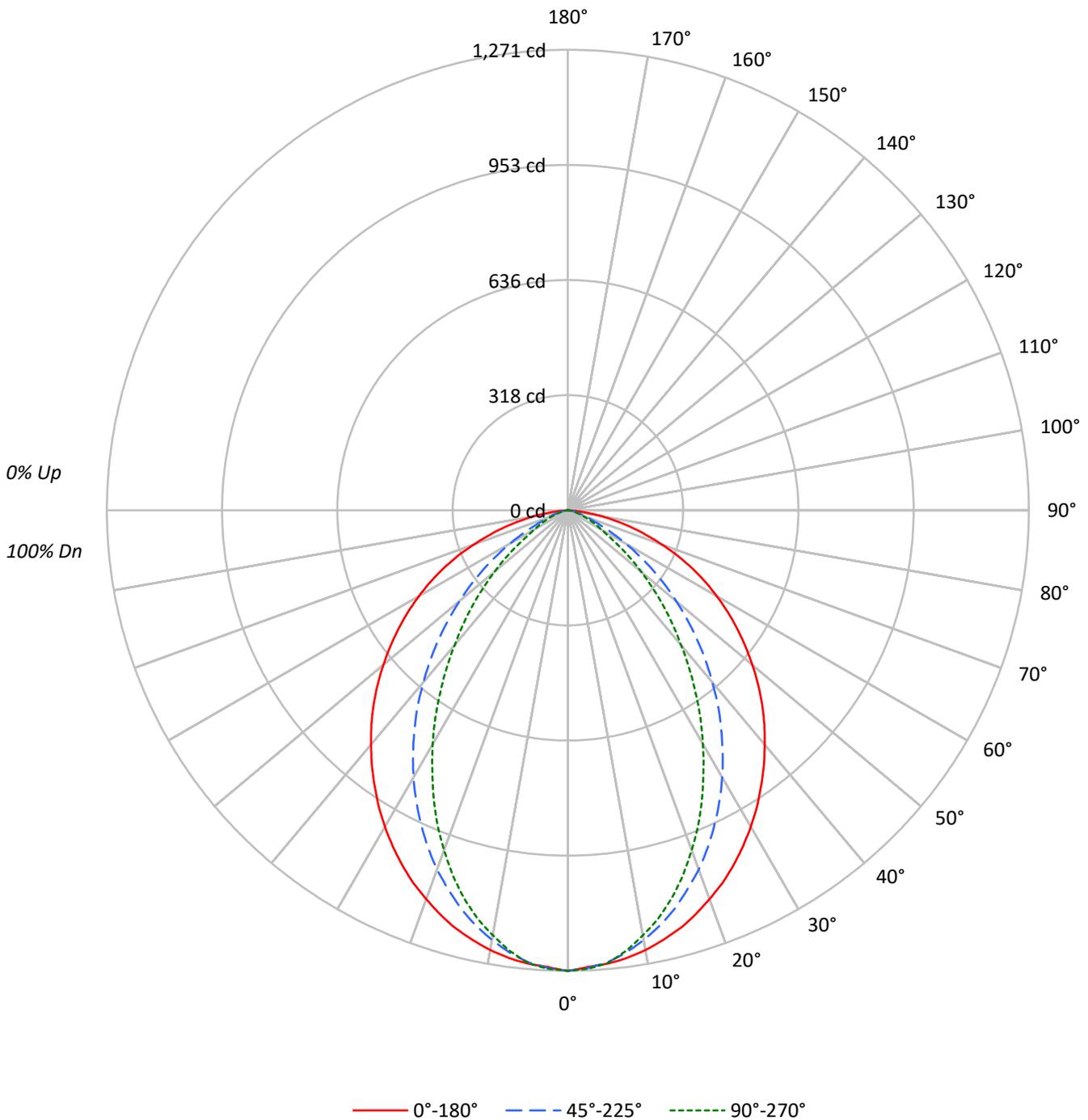
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 2297.7 lumens  
Efficiency: N/A  
Efficacy: 74.4 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): 30.9  
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	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													100															
1	111	107	103	100	108	105	102	99	101	98	96	97	95	93	93	92	90	88													88															
2	102	96	90	85	100	94	89	84	90	86	82	87	84	80	84	81	79	77													77															
3	95	86	79	73	92	84	78	73	81	76	71	79	74	70	76	72	69	67													67															
4	88	77	70	64	86	76	69	63	74	67	62	71	66	62	69	65	61	59													59															
5	81	70	62	56	79	69	61	56	67	60	55	65	59	55	63	58	54	52													52															
6	76	64	56	50	74	63	55	50	61	54	49	60	54	49	58	53	49	47													47															
7	71	58	50	45	69	58	50	45	56	49	44	55	49	44	54	48	44	42													42															
8	66	54	46	41	65	53	46	41	52	45	40	51	45	40	50	44	40	38													38															
9	62	50	42	37	61	49	42	37	48	41	37	47	41	37	46	41	36	35													35															
10	58	46	39	34	57	46	39	34	45	38	34	44	38	34	43	38	34	32													32															

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

	0°	45°	90°
0°	8987	8987	8987
5°	8913	8887	8904
10°	8847	8644	8551
15°	8744	8330	8106
20°	8590	7935	7509
25°	8429	7465	6831
30°	8235	6947	6082
35°	8015	6359	5293
40°	7789	5713	4476
45°	7567	5037	3707
50°	7302	4285	2912
55°	7022	3482	2119
60°	6707	2596	1514
65°	6301	1713	1181
70°	5692	1193	827
75°	4952	773	642
80°	3880	574	525
85°	2003	479	381

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 7567 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	118.4	5.2
10°-20°	321.9	14.0
20°-30°	445.1	19.4
30°-40°	471.6	20.5
40°-50°	411.6	17.9
50°-60°	292.8	12.7
60°-70°	162.8	7.1
70°-80°	62.6	2.7
80°-90°	10.8	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°	885.5	38.5
0°-40°	1357.1	59.1
0°-60°	2061.5	89.7
0°-90°	2297.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2297.7	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1271	1271	1271	1271	1271	
5°	1256	1265	1252	1249	1255	119
15°	1195	1184	1138	1114	1108	336
25°	1081	1044	957	898	876	497
35°	929	865	737	647	613	581
45°	757	666	504	403	371	583
55°	570	457	282	195	172	509
65°	377	247	102	75	71	372
75°	181	71	28	24	24	192
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°	1271.3	1271.3	1271.3	1271.3	1271.3
2.5°	1261.8	1274.8	1264.2	1265.4	1266.5
5°	1256.0	1265.4	1252.4	1248.9	1254.8
7.5°	1246.5	1253.6	1231.2	1223.0	1226.5
10°	1232.4	1234.8	1204.2	1192.4	1191.2
12.5°	1214.8	1211.2	1173.6	1154.7	1153.5
15°	1194.7	1184.2	1138.2	1113.5	1107.6
17.5°	1170.0	1153.5	1097.0	1065.3	1055.8
20°	1141.8	1119.4	1054.7	1013.5	998.2
22.5°	1113.5	1082.9	1007.6	955.8	939.3
25°	1080.6	1044.1	957.0	898.1	875.8
27.5°	1045.3	1001.7	905.2	836.9	809.8
30°	1008.8	958.2	851.0	774.5	745.1
32.5°	969.9	912.2	794.5	711.0	680.4
35°	928.7	865.2	736.9	647.4	613.3
37.5°	887.5	816.9	680.4	585.0	549.7
40°	844.0	767.5	619.1	521.5	485.0
42.5°	801.6	716.8	561.5	461.4	428.5
45°	756.9	666.2	503.8	402.6	370.8
47.5°	711.0	613.3	446.1	347.2	315.5
50°	663.9	561.5	389.6	293.1	264.8
52.5°	616.8	509.7	336.6	241.3	216.6
55°	569.7	456.7	282.5	195.4	171.9
57.5°	522.6	404.9	231.9	153.0	131.8
60°	474.4	351.9	183.6	113.0	107.1
62.5°	426.1	300.2	142.4	93.0	88.3
65°	376.7	247.2	102.4	75.3	70.6
67.5°	327.2	198.9	74.2	57.7	54.1
70°	275.4	151.8	57.7	43.6	40.0
72.5°	226.0	109.5	41.2	31.8	30.6
75°	181.3	70.6	28.3	23.5	23.5
77.5°	136.5	42.4	20.0	17.7	17.7
80°	95.3	24.7	14.1	12.9	12.9
82.5°	57.7	12.9	9.4	8.2	8.2
85°	24.7	7.1	5.9	4.7	4.7
87.5°	4.7	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	18.79	20.24	19.16	20.55	20.86	11.43	12.87	11.79	13.19	13.50
	3H	20.35	21.64	20.73	21.96	22.33	11.99	13.28	12.37	13.61	13.97
	4H	20.87	22.07	21.27	22.42	22.80	12.11	13.32	12.52	13.67	14.05
	6H	21.21	22.31	21.62	22.68	23.08	12.18	13.29	12.59	13.66	14.05
	8H	21.29	22.34	21.72	22.73	23.13	12.18	13.24	12.61	13.63	14.03
	12H	21.31	22.32	21.75	22.70	23.13	12.18	13.18	12.61	13.56	13.99
4H	2H	18.69	19.89	19.09	20.24	20.62	11.99	13.19	12.39	13.54	13.92
	3H	20.35	21.34	20.76	21.74	22.14	12.67	13.65	13.08	14.05	14.46
	4H	20.90	21.79	21.34	22.20	22.64	12.82	13.71	13.26	14.12	14.56
	6H	21.30	22.06	21.75	22.50	22.97	12.93	13.70	13.39	14.14	14.60
	8H	21.40	22.11	21.87	22.56	23.03	12.95	13.66	13.41	14.10	14.57
	12H	21.45	22.08	21.93	22.56	23.03	12.95	13.58	13.43	14.06	14.53
8H	4H	20.81	21.52	21.27	21.96	22.43	13.09	13.80	13.56	14.25	14.72
	6H	21.19	21.78	21.69	22.27	22.75	13.23	13.81	13.72	14.30	14.78
	8H	21.30	21.82	21.82	22.34	22.83	13.25	13.78	13.77	14.29	14.78
	12H	21.36	21.83	21.88	22.32	22.89	13.27	13.74	13.79	14.23	14.80
12H	4H	20.77	21.40	21.25	21.88	22.36	13.11	13.74	13.59	14.22	14.69
	6H	21.14	21.66	21.66	22.18	22.67	13.24	13.76	13.75	14.27	14.76
	8H	21.27	21.73	21.78	22.22	22.79	13.30	13.76	13.81	14.25	14.82