

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: P1056507

Luminaire Tested: S125R3DR-H1090D927-X4F0-XX-UDD-FLL-W

Issue Date: 7/25/2025

**Test Information**

Test Method: LM-79-2019  
Report Number: P1056507  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2503-402-10)  
Test Lab: INNOVATION CENTER  
Issue Date: 7/25/2025  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: NEO-RAY  
Catalog Number: S125R3DR-H1090D927-X4F0-XX-UDD-FLL-W  
Description: DEFINE 5, WHITE 3-INCH REGRESSED DIRECT RECESSED HOUSING WITH FROSTED LENS  
HIGH PERFORMANCE LIGHT ENGINE  
Light Source: 2700K CCT, 90 CRI LEDS  
Ballast/Driver: -

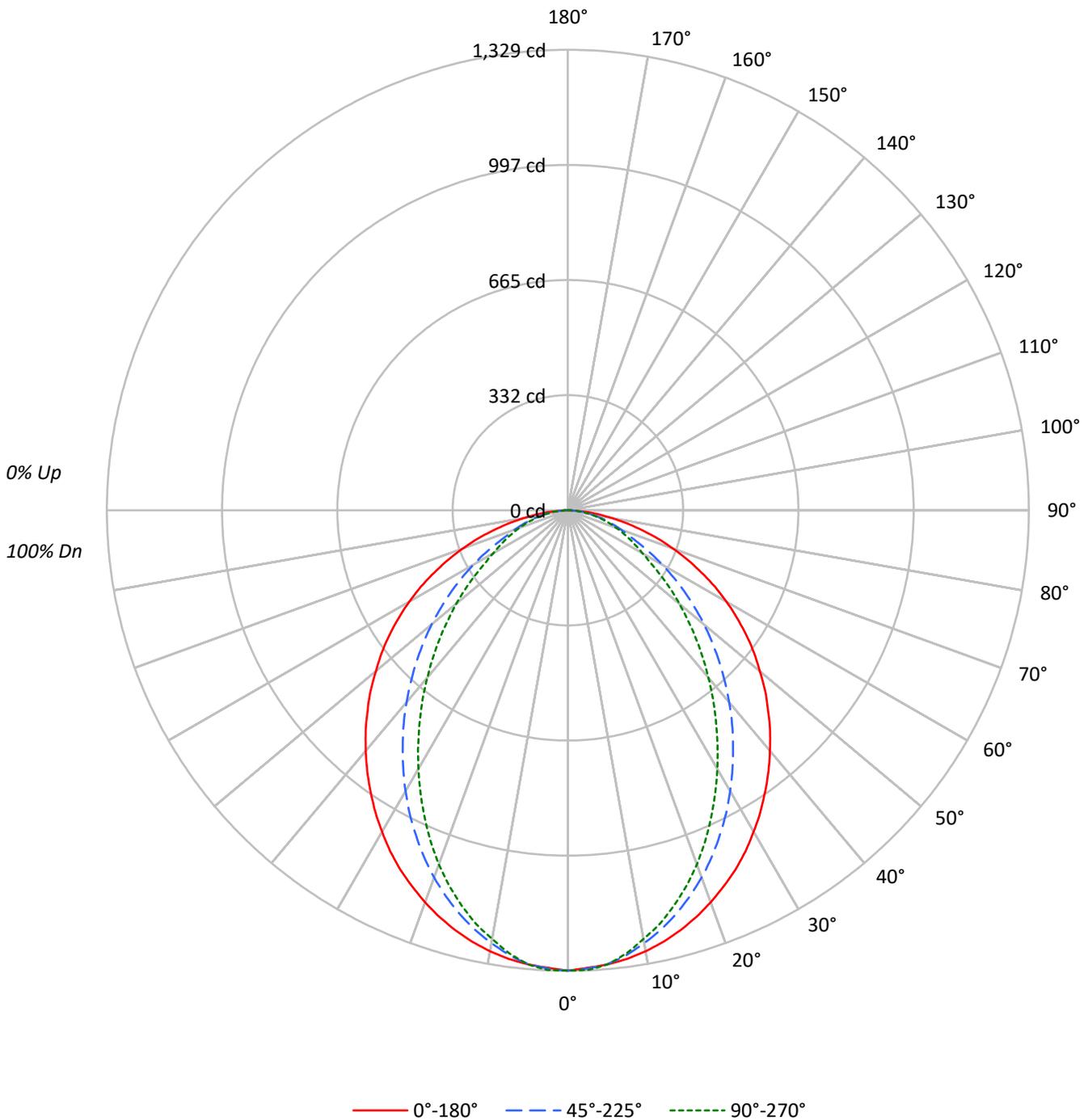
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 2816.1 lumens  
Efficiency: N/A  
Efficacy: 91.1 lumens/watt  
Spacing Criteria (0/90/45): 1.2 / 1.01 / 1.17  
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																												
1	110	105	101	98	107	103	100	96	99	96	93	95	93	90	91	90	88	86																												
2	101	93	87	81	98	91	85	80	88	83	79	84	80	77	81	78	75	73																												
3	92	83	75	69	90	81	74	68	78	72	67	75	70	66	73	69	65	63																												
4	85	74	66	59	83	73	65	59	70	63	58	68	62	57	66	61	57	55																												
5	79	67	58	52	77	66	58	52	63	56	51	62	55	51	60	54	50	48																												
6	73	60	52	46	71	59	51	46	58	51	45	56	50	45	55	49	45	43																												
7	68	55	47	41	66	54	46	41	53	46	41	51	45	40	50	44	40	38																												
8	63	51	42	37	62	50	42	37	49	42	37	47	41	36	46	40	36	34																												
9	59	47	39	33	58	46	39	33	45	38	33	44	38	33	43	37	33	31																												
10	56	43	36	31	55	43	35	30	42	35	30	41	35	30	40	34	30	28																												

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

	0°	45°	90°
0°	9392	9392	9392
5°	9337	9330	9337
10°	9274	9104	9019
15°	9181	8826	8645
20°	9058	8484	8180
25°	8920	8079	7624
30°	8746	7640	7034
35°	8555	7163	6421
40°	8363	6674	5816
45°	8160	6161	5213
50°	7943	5636	4614
55°	7743	5061	4012
60°	7469	4448	3525
65°	7099	3774	3277
70°	6666	3373	3067
75°	6025	3108	2893
80°	5235	2821	2699
85°	4096	2490	2490

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 8160 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	124.3	4.4
10°-20°	341.3	12.1
20°-30°	482.2	17.1
30°-40°	530.8	18.8
40°-50°	495.1	17.6
50°-60°	395.3	14.0
60°-70°	266.0	9.4
70°-80°	141.7	5.0
80°-90°	39.4	1.4
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°	947.8	33.7
0°-40°	1478.6	52.5
0°-60°	2369.0	84.1
0°-90°	2816.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2816.1	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1329	1329	1329	1329	1329	
5°	1316	1327	1315	1311	1316	125
15°	1254	1248	1206	1185	1181	354
25°	1144	1109	1036	990	977	526
35°	991	933	830	765	744	620
45°	816	739	616	541	521	630
55°	628	533	411	345	326	561
65°	424	331	226	200	196	421
75°	221	146	114	107	106	235
85°	50	35	31	32	31	60
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1328.6	1328.6	1328.6	1328.6	1328.6
2.5°	1321.7	1332.6	1323.7	1325.7	1327.7
5°	1315.8	1326.7	1314.8	1310.8	1315.8
7.5°	1305.9	1314.8	1295.0	1286.1	1290.1
10°	1292.0	1298.0	1268.3	1256.4	1256.4
12.5°	1275.2	1275.2	1239.6	1222.8	1222.8
15°	1254.4	1247.5	1206.0	1185.2	1181.2
17.5°	1230.7	1217.8	1168.4	1141.7	1136.7
20°	1204.0	1183.2	1127.8	1093.2	1087.3
22.5°	1174.3	1147.6	1083.3	1040.8	1033.8
25°	1143.6	1109.0	1035.8	990.3	977.4
27.5°	1109.0	1067.5	987.3	935.9	920.1
30°	1071.4	1023.9	935.9	878.5	861.7
32.5°	1032.8	979.4	883.5	822.1	803.3
35°	991.3	932.9	830.0	764.7	744.0
37.5°	949.7	886.4	777.6	709.3	687.6
40°	906.2	837.0	723.2	652.9	630.2
42.5°	862.7	788.5	669.8	598.5	574.8
45°	816.2	739.0	616.3	541.2	521.4
47.5°	771.7	688.6	563.9	490.7	468.9
50°	722.2	636.1	512.5	439.3	419.5
52.5°	676.7	584.7	461.0	392.8	372.0
55°	628.2	533.2	410.6	345.3	325.5
57.5°	577.8	481.8	362.1	300.8	282.0
60°	528.3	430.4	314.6	258.2	249.3
62.5°	477.8	381.9	270.1	226.6	220.6
65°	424.4	331.4	225.6	199.8	195.9
67.5°	374.0	282.9	189.9	175.1	171.2
70°	322.5	234.5	163.2	150.4	148.4
72.5°	272.1	188.0	137.5	128.6	126.6
75°	220.6	146.4	113.8	106.8	105.9
77.5°	173.1	109.8	90.0	87.1	85.1
80°	128.6	82.1	69.3	67.3	66.3
82.5°	88.0	56.4	49.5	49.5	47.5
85°	50.5	34.6	30.7	31.7	30.7
87.5°	18.8	14.8	13.9	14.8	14.8
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	19.07	20.61	19.44	20.92	21.24	15.45	16.99	15.82	17.31	17.62
	3H	20.86	22.24	21.23	22.57	22.93	16.93	18.31	17.31	18.64	19.00
	4H	21.51	22.81	21.91	23.16	23.53	17.52	18.82	17.92	19.17	19.55
	6H	21.99	23.19	22.40	23.55	23.94	17.98	19.18	18.39	19.55	19.94
	8H	22.14	23.28	22.57	23.67	24.07	18.14	19.29	18.57	19.68	20.08
	12H	22.24	23.33	22.67	23.71	24.14	18.26	19.35	18.69	19.74	20.16
4H	2H	19.21	20.50	19.60	20.85	21.23	16.13	17.43	16.53	17.78	18.16
	3H	21.18	22.26	21.59	22.66	23.06	17.81	18.89	18.22	19.29	19.69
	4H	21.92	22.89	22.35	23.31	23.75	18.51	19.48	18.94	19.90	20.34
	6H	22.52	23.36	22.97	23.81	24.26	19.10	19.94	19.55	20.39	20.85
	8H	22.72	23.51	23.18	23.96	24.42	19.30	20.10	19.77	20.54	21.01
	12H	22.87	23.58	23.35	24.06	24.53	19.47	20.18	19.95	20.65	21.12
8H	4H	21.98	22.78	22.45	23.22	23.69	18.87	19.67	19.34	20.11	20.58
	6H	22.64	23.30	23.14	23.79	24.27	19.58	20.23	20.07	20.72	21.20
	8H	22.90	23.49	23.41	24.00	24.48	19.86	20.45	20.37	20.96	21.45
	12H	23.11	23.63	23.61	24.12	24.68	20.10	20.62	20.61	21.12	21.68
12H	4H	21.98	22.69	22.46	23.16	23.63	18.92	19.63	19.40	20.11	20.58
	6H	22.64	23.23	23.15	23.74	24.22	19.65	20.24	20.16	20.75	21.24
	8H	22.93	23.45	23.44	23.94	24.51	19.99	20.51	20.50	21.00	21.57