

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: P1056510

Luminaire Tested: S125R3DR-H1090D930-X4F0-XX-UDD-FLL-W

Issue Date: 7/25/2025

**Test Information**

Test Method: LM-79-2019  
Report Number: P1056510  
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-H1090D930-X4F0-XX-UDD-FLL-W  
Description: DEFINE 5, WHITE 3-INCH REGRESSED DIRECT RECESSED HOUSING WITH FROSTED LENS  
HIGH PERFORMANCE LIGHT ENGINE  
Light Source: 3000K CCT, 90 CRI LEDS  
Ballast/Driver: -

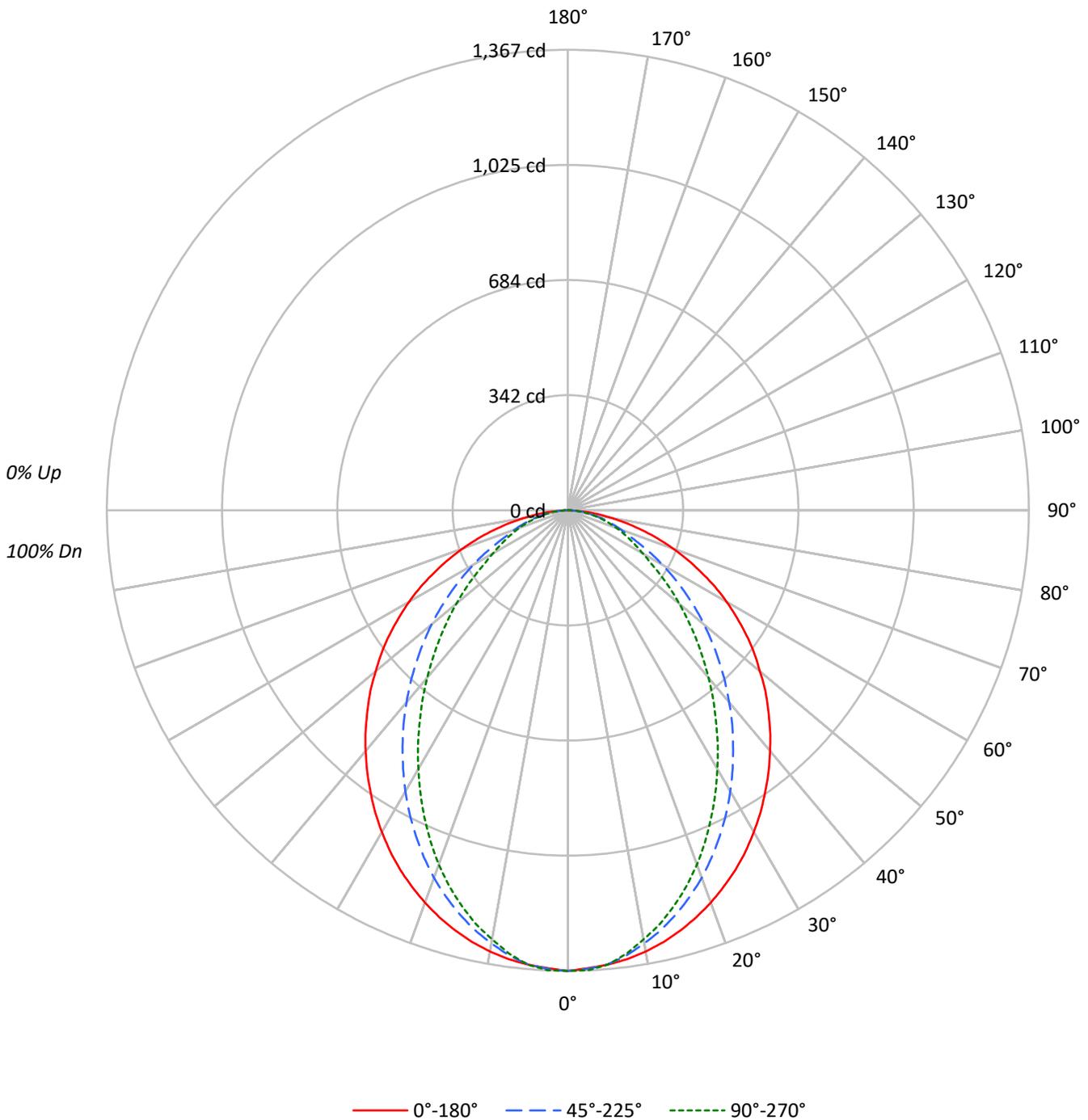
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 2898.2 lumens  
Efficiency: N/A  
Efficacy: 93.8 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 (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	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°	9667	9667	9667
5°	9610	9603	9610
10°	9545	9370	9282
15°	9449	9084	8897
20°	9322	8732	8418
25°	9181	8315	7847
30°	9001	7863	7239
35°	8804	7373	6608
40°	8607	6869	5986
45°	8398	6341	5365
50°	8175	5800	4748
55°	7968	5207	4129
60°	7687	4578	3628
65°	7307	3882	3372
70°	6860	3472	3156
75°	6203	3198	2974
80°	5390	2903	2776
85°	4210	2563	2563

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 8398 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	127.9	4.4
10°-20°	351.3	12.1
20°-30°	496.2	17.1
30°-40°	546.3	18.8
40°-50°	509.6	17.6
50°-60°	406.8	14.0
60°-70°	273.8	9.4
70°-80°	145.8	5.0
80°-90°	40.5	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°	975.5	33.7
0°-40°	1521.8	52.5
0°-60°	2438.1	84.1
0°-90°	2898.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2898.2	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1367	1367	1367	1367	1367	
5°	1354	1365	1353	1349	1354	129
15°	1291	1284	1241	1220	1216	364
25°	1177	1141	1066	1019	1006	542
35°	1020	960	854	787	766	638
45°	840	761	634	557	537	649
55°	646	549	422	355	335	577
65°	437	341	232	206	202	433
75°	227	151	117	110	109	242
85°	52	36	32	33	32	62
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1367.4	1367.4	1367.4	1367.4	1367.4
2.5°	1360.3	1371.5	1362.3	1364.4	1366.4
5°	1354.2	1365.4	1353.2	1349.1	1354.2
7.5°	1344.0	1353.2	1332.8	1323.6	1327.7
10°	1329.7	1335.9	1305.3	1293.1	1293.1
12.5°	1312.4	1312.4	1275.8	1258.5	1258.5
15°	1291.1	1283.9	1241.2	1219.8	1215.7
17.5°	1266.6	1253.4	1202.5	1175.0	1169.9
20°	1239.1	1217.7	1160.7	1125.1	1119.0
22.5°	1208.6	1181.1	1114.9	1071.1	1064.0
25°	1177.0	1141.4	1066.0	1019.2	1006.0
27.5°	1141.4	1098.6	1016.1	963.2	946.9
30°	1102.7	1053.8	963.2	904.1	886.8
32.5°	1063.0	1008.0	909.2	846.1	826.8
35°	1020.2	960.1	854.3	787.1	765.7
37.5°	977.5	912.3	800.3	730.0	707.6
40°	932.7	861.4	744.3	672.0	648.6
42.5°	887.9	811.5	689.3	616.0	591.6
45°	840.0	760.6	634.3	556.9	536.6
47.5°	794.2	708.7	580.4	505.0	482.6
50°	743.3	654.7	527.4	452.1	431.7
52.5°	696.4	601.7	474.5	404.2	382.8
55°	646.5	548.8	422.5	355.3	335.0
57.5°	594.6	495.9	372.7	309.5	290.2
60°	543.7	442.9	323.8	265.7	256.6
62.5°	491.8	393.0	278.0	233.2	227.1
65°	436.8	341.1	232.1	205.7	201.6
67.5°	384.9	291.2	195.5	180.2	176.1
70°	331.9	241.3	168.0	154.8	152.7
72.5°	280.0	193.5	141.5	132.4	130.3
75°	227.1	150.7	117.1	110.0	108.9
77.5°	178.2	113.0	92.7	89.6	87.6
80°	132.4	84.5	71.3	69.2	68.2
82.5°	90.6	58.0	50.9	50.9	48.9
85°	51.9	35.6	31.6	32.6	31.6
87.5°	19.3	15.3	14.3	15.3	15.3
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	19.17	20.71	19.54	21.02	21.34	15.55	17.09	15.92	17.41	17.72
	3H	20.96	22.34	21.33	22.67	23.03	17.03	18.41	17.41	18.74	19.10
	4H	21.61	22.91	22.01	23.26	23.63	17.62	18.92	18.02	19.27	19.64
	6H	22.09	23.29	22.50	23.65	24.04	18.08	19.28	18.49	19.65	20.04
	8H	22.24	23.38	22.67	23.77	24.17	18.24	19.39	18.67	19.78	20.18
	12H	22.34	23.43	22.77	23.81	24.24	18.36	19.45	18.79	19.83	20.26
4H	2H	19.31	20.60	19.70	20.95	21.33	16.23	17.53	16.63	17.88	18.25
	3H	21.28	22.36	21.69	22.76	23.16	17.91	18.99	18.32	19.39	19.79
	4H	22.02	22.99	22.45	23.41	23.85	18.61	19.58	19.04	20.00	20.44
	6H	22.62	23.46	23.07	23.91	24.36	19.20	20.04	19.65	20.49	20.94
	8H	22.82	23.61	23.28	24.06	24.52	19.40	20.20	19.87	20.64	21.11
	12H	22.97	23.68	23.45	24.16	24.63	19.56	20.27	20.05	20.75	21.22
8H	4H	22.08	22.88	22.55	23.32	23.79	18.97	19.77	19.44	20.21	20.68
	6H	22.74	23.40	23.24	23.89	24.37	19.68	20.33	20.17	20.82	21.30
	8H	23.00	23.59	23.51	24.10	24.58	19.96	20.55	20.47	21.06	21.55
	12H	23.21	23.73	23.71	24.22	24.78	20.20	20.72	20.71	21.21	21.78
12H	4H	22.08	22.79	22.56	23.26	23.73	19.02	19.73	19.50	20.21	20.68
	6H	22.74	23.33	23.25	23.84	24.32	19.75	20.34	20.26	20.85	21.33
	8H	23.03	23.55	23.54	24.04	24.61	20.09	20.61	20.60	21.10	21.67