

Cooper Lighting Solutions Photometric Lab  
1121 Highway 74 South  
Peachtree City, GA 30269



Scaled data based on original data using  
LM-79-2024 Approved Method: Electrical and Photometric Measurements of Solid-  
State Lighting Products

Test Report Prepared for  
Cooper Lighting Solutions

Brand: NEO-RAY

Report Number: P1056627

Luminaire Tested: S125R3DR-H850D950-X4F0-XX-UDD-F-W

Issue Date: 7/25/2025

**Test Information**

Test Method: LM-79-2024  
Report Number: P1056627  
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-H850D950-X4F0-XX-UDD-F-W  
Description: DEFINE 5, WHITE 3-INCH REGRESSED DIRECT RECESSED HOUSING WITH FROSTED LENS  
HIGH PERFORMANCE LIGHT ENGINE  
Light Source: 5000K CCT, 90 CRI LEDS  
Ballast/Driver: -

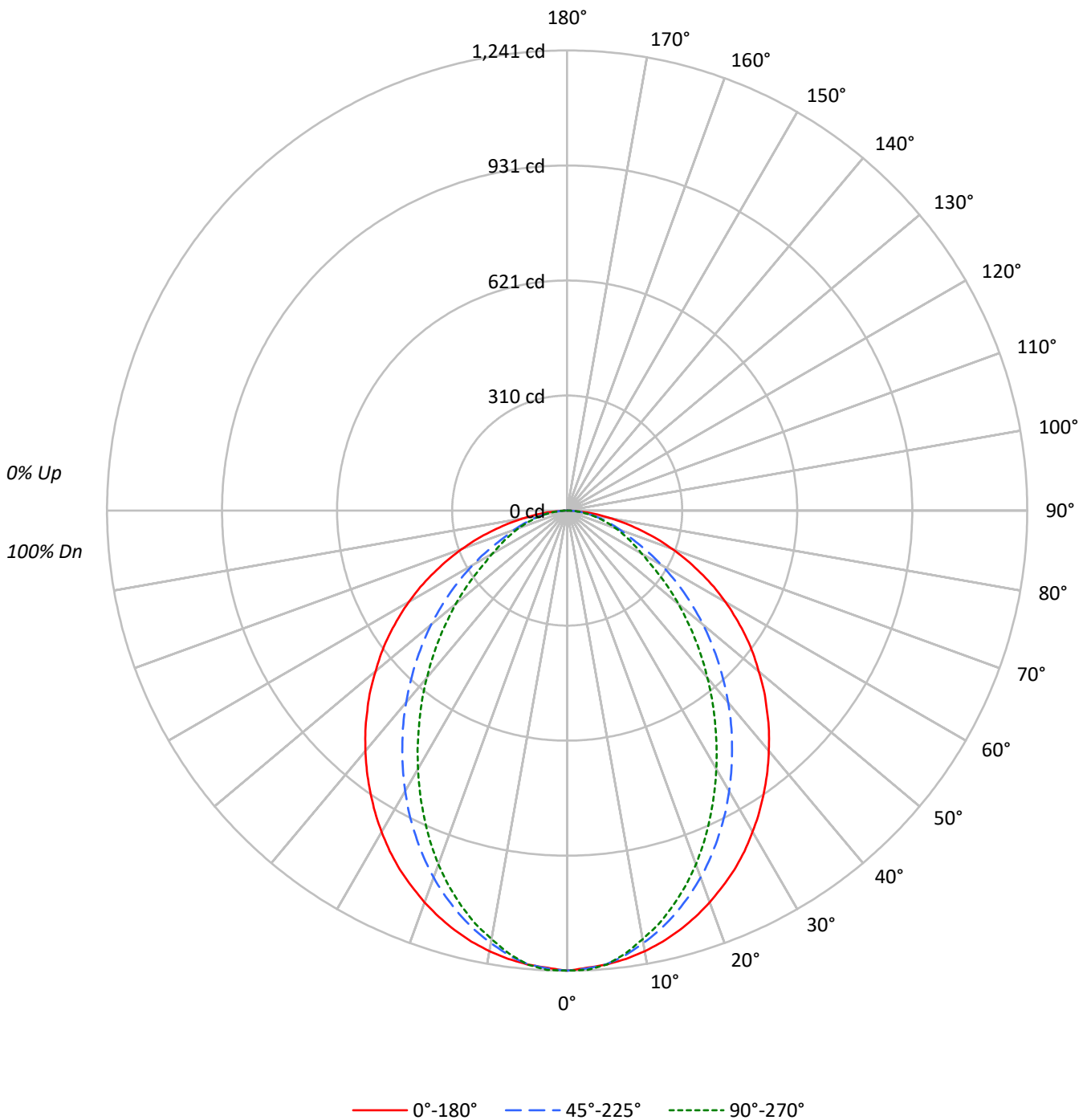
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 2629.6 lumens  
Efficiency: N/A  
Efficacy: 110.5 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): 23.8  
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°	8771	8771	8771
5°	8719	8713	8719
10°	8661	8501	8422
15°	8573	8242	8073
20°	8458	7923	7638
25°	8330	7544	7119
30°	8167	7134	6569
35°	7989	6689	5995
40°	7809	6232	5431
45°	7620	5754	4868
50°	7417	5263	4308
55°	7230	4725	3746
60°	6975	4154	3291
65°	6629	3523	3059
70°	6226	3150	2865
75°	5627	2901	2699
80°	4889	2634	2520
85°	3820	2320	2320

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 7620 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	116.1	4.4
10°-20°	318.7	12.1
20°-30°	450.2	17.1
30°-40°	495.7	18.8
40°-50°	462.4	17.6
50°-60°	369.1	14.0
60°-70°	248.4	9.4
70°-80°	132.3	5.0
80°-90°	36.8	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°	885.1	33.7
0°-40°	1380.7	52.5
0°-60°	2212.2	84.1
0°-90°	2629.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2629.6	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1241	1241	1241	1241	1241	
5°	1229	1239	1228	1224	1229	117
15°	1171	1165	1126	1107	1103	330
25°	1068	1036	967	925	913	492
35°	926	871	775	714	695	579
45°	762	690	576	505	487	588
55°	587	498	383	322	304	524
65°	396	310	211	187	183	393
75°	206	137	106	100	99	219
85°	47	32	29	30	29	56
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1240.7	1240.7	1240.7	1240.7	1240.7
2.5°	1234.2	1244.4	1236.1	1237.9	1239.8
5°	1228.7	1238.9	1227.8	1224.1	1228.7
7.5°	1219.4	1227.8	1209.3	1201.0	1204.7
10°	1206.5	1212.1	1184.3	1173.3	1173.3
12.5°	1190.8	1190.8	1157.6	1141.8	1141.8
15°	1171.4	1164.9	1126.1	1106.7	1103.0
17.5°	1149.2	1137.2	1091.0	1066.1	1061.5
20°	1124.3	1104.9	1053.2	1020.8	1015.3
22.5°	1096.6	1071.6	1011.6	971.9	965.4
25°	1067.9	1035.6	967.2	924.7	912.7
27.5°	1035.6	996.8	922.0	873.9	859.2
30°	1000.5	956.2	873.9	820.4	804.7
32.5°	964.5	914.6	825.0	767.7	750.1
35°	925.7	871.2	775.1	714.1	694.7
37.5°	886.9	827.7	726.1	662.4	642.1
40°	846.2	781.6	675.3	609.7	588.5
42.5°	805.6	736.3	625.4	558.9	536.7
45°	762.2	690.1	575.5	505.3	486.9
47.5°	720.6	643.0	526.6	458.2	437.9
50°	674.4	594.0	478.5	410.2	391.7
52.5°	631.9	546.0	430.5	366.8	347.4
55°	586.6	497.9	383.4	322.4	303.9
57.5°	539.5	449.9	338.1	280.8	263.3
60°	493.3	401.9	293.8	241.1	232.8
62.5°	446.2	356.6	252.2	211.6	206.0
65°	396.3	309.5	210.6	186.6	182.9
67.5°	349.2	264.2	177.4	163.5	159.8
70°	301.2	218.9	152.4	140.4	138.6
72.5°	254.1	175.5	128.4	120.1	118.2
75°	206.0	136.7	106.2	99.8	98.8
77.5°	161.7	102.5	84.1	81.3	79.4
80°	120.1	76.7	64.7	62.8	61.9
82.5°	82.2	52.7	46.2	46.2	44.3
85°	47.1	32.3	28.6	29.6	28.6
87.5°	17.6	13.9	12.9	13.9	13.9
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	20.37	19.20	20.69	21.00	15.21	16.75	15.58	17.07	17.38
	3H	20.62	22.00	21.00	22.33	22.69	16.69	18.07	17.07	18.40	18.76
	4H	21.27	22.57	21.67	22.92	23.30	17.28	18.58	17.68	18.93	19.31
	6H	21.75	22.95	22.16	23.31	23.71	17.74	18.94	18.15	19.31	19.70
	8H	21.90	23.05	22.33	23.44	23.84	17.90	19.05	18.33	19.44	19.84
	12H	22.00	23.09	22.43	23.47	23.90	18.02	19.11	18.45	19.49	19.92
4H	2H	18.97	20.27	19.37	20.61	20.99	15.89	17.19	16.29	17.54	17.92
	3H	20.94	22.02	21.35	22.42	22.82	17.57	18.65	17.98	19.05	19.45
	4H	21.68	22.66	22.11	23.07	23.51	18.27	19.24	18.70	19.66	20.10
	6H	22.28	23.12	22.73	23.57	24.03	18.86	19.70	19.31	20.15	20.61
	8H	22.48	23.28	22.95	23.72	24.19	19.06	19.86	19.53	20.30	20.77
	12H	22.63	23.34	23.11	23.82	24.29	19.23	19.94	19.71	20.41	20.88
8H	4H	21.75	22.54	22.21	22.98	23.45	18.64	19.43	19.10	19.87	20.34
	6H	22.41	23.06	22.90	23.55	24.03	19.34	19.99	19.83	20.48	20.96
	8H	22.66	23.25	23.17	23.76	24.25	19.62	20.21	20.13	20.72	21.21
	12H	22.87	23.39	23.38	23.88	24.44	19.86	20.38	20.37	20.88	21.44
12H	4H	21.74	22.45	22.22	22.93	23.40	18.68	19.39	19.16	19.87	20.34
	6H	22.40	22.99	22.91	23.50	23.99	19.41	20.00	19.92	20.51	21.00
	8H	22.69	23.22	23.20	23.71	24.27	19.75	20.27	20.26	20.77	21.33