

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: P1056626

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

Issue Date: 7/25/2025

**Test Information**

Test Method: LM-79-2024  
Report Number: P1056626  
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-H850D950-X4F0-XX-UDD-F-S  
Description: DEFINE 5, SILVER 3-INCH REGRESSED DIRECT RECESSED HOUSING WITH FROSTED LENS  
HIGH PERFORMANCE LIGHT ENGINE  
Light Source: 5000K CCT, 90 CRI LEDS  
Ballast/Driver: -

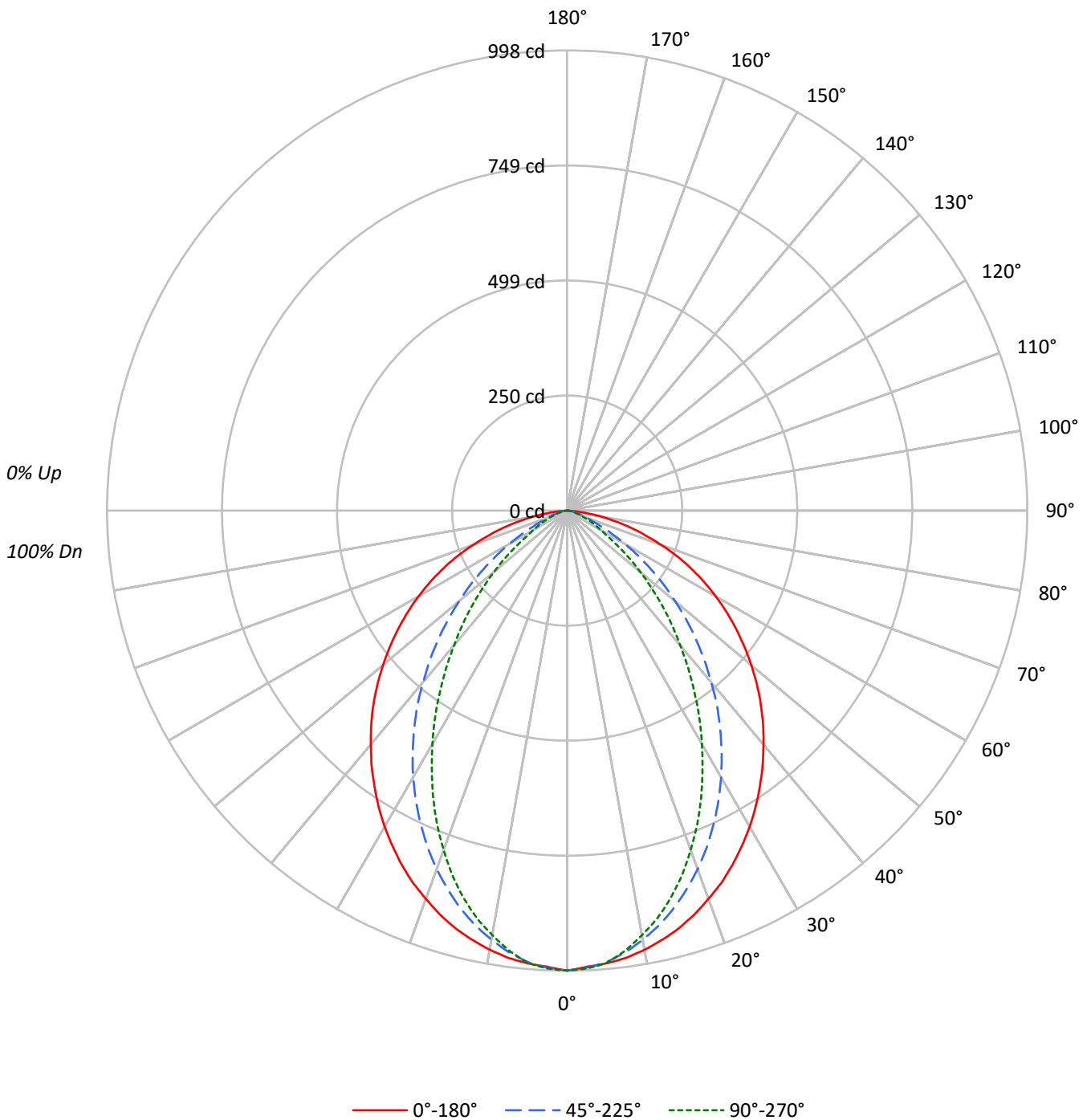
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 1803.3 lumens  
Efficiency: N/A  
Efficacy: 75.8 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): 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	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°	7053	7053	7053
5°	6995	6975	6988
10°	6943	6784	6711
15°	6863	6538	6362
20°	6741	6227	5894
25°	6615	5859	5361
30°	6463	5452	4774
35°	6290	4991	4154
40°	6113	4484	3512
45°	5939	3953	2909
50°	5730	3363	2286
55°	5511	2732	1663
60°	5264	2037	1189
65°	4945	1345	927
70°	4469	936	649
75°	3887	606	505
80°	3045	452	415
85°	1574	373	300

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 5939 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	92.9	5.2
10°-20°	252.7	14.0
20°-30°	349.4	19.4
30°-40°	370.1	20.5
40°-50°	323.1	17.9
50°-60°	229.8	12.7
60°-70°	127.8	7.1
70°-80°	49.1	2.7
80°-90°	8.5	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°	694.9	38.5
0°-40°	1065.1	59.1
0°-60°	1617.9	89.7
0°-90°	1803.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1803.3	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	998	998	998	998	998	
5°	986	993	983	980	985	94
15°	938	929	893	874	869	264
25°	848	819	751	705	687	390
35°	729	679	578	508	481	456
45°	594	523	395	316	291	458
55°	447	358	222	153	135	400
65°	296	194	80	59	55	292
75°	142	55	22	18	18	151
85°	19	6	5	4	4	29
90°	0	0	0	0	0	

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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	997.7	997.7	997.7	997.7	997.7
2.5°	990.3	1000.5	992.2	993.1	994.0
5°	985.7	993.1	982.9	980.2	984.8
7.5°	978.3	983.9	966.3	959.9	962.6
10°	967.2	969.1	945.1	935.8	934.9
12.5°	953.4	950.6	921.1	906.3	905.3
15°	937.7	929.4	893.3	873.9	869.3
17.5°	918.3	905.3	861.0	836.1	828.7
20°	896.1	878.6	827.7	795.4	783.4
22.5°	873.9	849.9	790.8	750.1	737.2
25°	848.1	819.4	751.1	704.9	687.3
27.5°	820.4	786.2	710.4	656.8	635.6
30°	791.7	752.0	667.9	607.9	584.8
32.5°	761.2	716.0	623.6	558.0	534.0
35°	728.9	679.0	578.3	508.1	481.3
37.5°	696.6	641.1	534.0	459.1	431.4
40°	662.4	602.3	485.9	409.3	380.6
42.5°	629.1	562.6	440.7	362.1	336.3
45°	594.0	522.9	395.4	315.9	291.0
47.5°	558.0	481.3	350.1	272.5	247.6
50°	521.0	440.7	305.8	230.0	207.9
52.5°	484.1	400.0	264.2	189.4	170.0
55°	447.1	358.4	221.7	153.4	134.9
57.5°	410.2	317.8	182.0	120.1	103.5
60°	372.3	276.2	144.1	88.7	84.1
62.5°	334.4	235.6	111.8	73.0	69.3
65°	295.6	194.0	80.4	59.1	55.4
67.5°	256.8	156.1	58.2	45.3	42.5
70°	216.2	119.2	45.3	34.2	31.4
72.5°	177.4	85.9	32.3	24.9	24.0
75°	142.3	55.4	22.2	18.5	18.5
77.5°	107.2	33.3	15.7	13.9	13.9
80°	74.8	19.4	11.1	10.2	10.2
82.5°	45.3	10.2	7.4	6.5	6.5
85°	19.4	5.5	4.6	3.7	3.7
87.5°	3.7	1.8	1.8	1.8	1.8
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	17.95	19.39	18.31	19.71	20.02	10.59	12.03	10.95	12.34	12.66
	3H	19.51	20.79	19.89	21.12	21.49	11.15	12.44	11.53	12.77	13.13
	4H	20.03	21.23	20.43	21.58	21.96	11.28	12.48	11.68	12.83	13.21
	6H	20.37	21.47	20.78	21.84	22.23	11.34	12.45	11.75	12.82	13.21
	8H	20.45	21.50	20.88	21.89	22.29	11.35	12.40	11.77	12.79	13.19
	12H	20.47	21.48	20.90	21.86	22.29	11.34	12.34	11.77	12.72	13.15
4H	2H	17.85	19.05	18.25	19.40	19.78	11.15	12.35	11.55	12.70	13.08
	3H	19.51	20.50	19.92	20.90	21.30	11.83	12.81	12.24	13.21	13.62
	4H	20.06	20.94	20.49	21.36	21.80	11.98	12.87	12.42	13.28	13.72
	6H	20.45	21.22	20.91	21.66	22.13	12.10	12.86	12.56	13.30	13.77
	8H	20.56	21.27	21.02	21.72	22.19	12.11	12.82	12.57	13.27	13.74
	12H	20.61	21.24	21.09	21.72	22.19	12.11	12.74	12.59	13.22	13.70
8H	4H	19.96	20.68	20.43	21.12	21.59	12.25	12.96	12.72	13.41	13.88
	6H	20.35	20.94	20.85	21.43	21.91	12.39	12.97	12.89	13.47	13.95
	8H	20.46	20.98	20.98	21.50	21.99	12.42	12.94	12.93	13.45	13.94
	12H	20.52	20.99	21.03	21.48	22.05	12.44	12.90	12.95	13.40	13.96
12H	4H	19.93	20.56	20.41	21.04	21.51	12.27	12.90	12.75	13.38	13.85
	6H	20.30	20.82	20.82	21.34	21.83	12.40	12.92	12.92	13.44	13.93
	8H	20.43	20.89	20.94	21.38	21.95	12.46	12.92	12.97	13.42	13.98