

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: P1056602

Luminaire Tested: S125R3DR-H850D830-X4F0-XX-UDD-F-S

Issue Date: 7/25/2025

Test Information

Test Method: LM-79-2024
Report Number: P1056602
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-H850D830-X4F0-XX-UDD-F-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

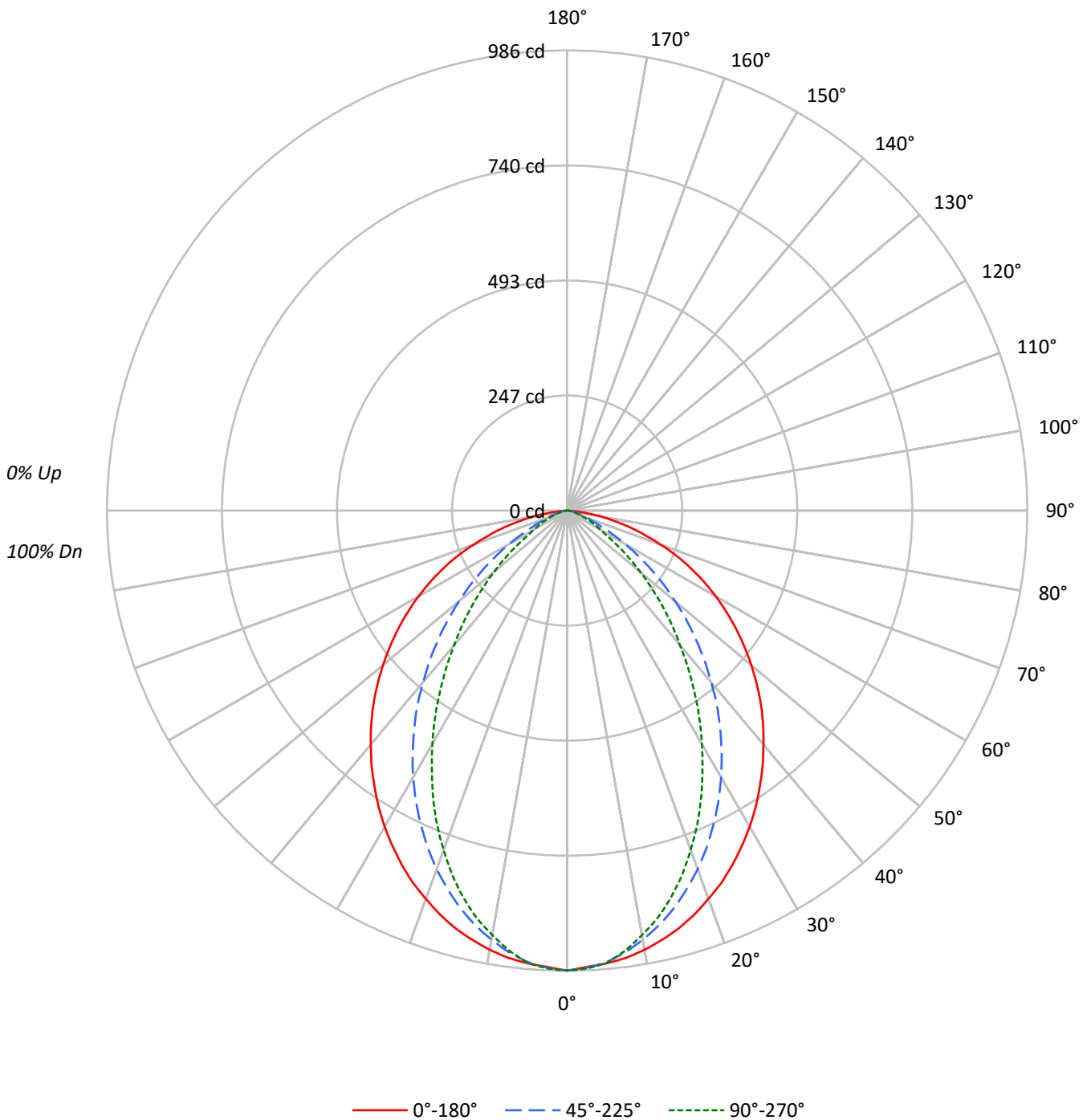
Lumens per Lamp: N/A
Luminaire Lumens: 1781.7 lumens
Efficiency: N/A
Efficacy: 74.9 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 0.95 / 1.11
Luminous Opening: Rectangular (W 0.39' x L: 3.9' x H: 0')
CIE Type: Direct

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°	6968	6968	6968
5°	6911	6891	6905
10°	6860	6702	6631
15°	6780	6459	6286
20°	6660	6152	5823
25°	6536	5788	5297
30°	6385	5387	4717
35°	6215	4931	4104
40°	6039	4431	3470
45°	5868	3905	2874
50°	5662	3322	2259
55°	5445	2700	1643
60°	5200	2013	1175
65°	4886	1328	917
70°	4415	924	641
75°	3840	598	500
80°	3009	448	407
85°	1557	373	300

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 5868 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	91.8	5.2
10°-20°	249.6	14.0
20°-30°	345.2	19.4
30°-40°	365.7	20.5
40°-50°	319.2	17.9
50°-60°	227.0	12.7
60°-70°	126.2	7.1
70°-80°	48.5	2.7
80°-90°	8.4	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°	686.6	38.5
0°-40°	1052.3	59.1
0°-60°	1598.5	89.7
0°-90°	1781.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1781.7	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	986	986	986	986	986	
5°	974	981	971	968	973	92
15°	926	918	883	863	859	261
25°	838	810	742	696	679	386
35°	720	671	571	502	476	451
45°	587	517	391	312	288	452
55°	442	354	219	152	133	395
65°	292	192	79	58	55	289
75°	141	55	22	18	18	149
85°	19	6	5	4	4	28
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	985.7	985.7	985.7	985.7	985.7
2.5°	978.4	988.5	980.3	981.2	982.1
5°	973.9	981.2	971.1	968.4	973.0
7.5°	966.6	972.1	954.7	948.3	951.1
10°	955.6	957.5	933.7	924.6	923.7
12.5°	941.9	939.2	910.0	895.4	894.5
15°	926.4	918.2	882.6	863.4	858.9
17.5°	907.3	894.5	850.7	826.0	818.7
20°	885.3	868.0	817.8	785.9	774.0
22.5°	863.4	839.7	781.3	741.1	728.4
25°	837.9	809.6	742.0	696.4	679.1
27.5°	810.5	776.7	701.9	649.0	628.0
30°	782.2	743.0	659.9	600.6	577.8
32.5°	752.1	707.4	616.1	551.3	527.6
35°	720.1	670.9	571.4	502.0	475.5
37.5°	688.2	633.4	527.6	453.6	426.2
40°	654.4	595.1	480.1	404.3	376.0
42.5°	621.6	555.9	435.4	357.8	332.2
45°	586.9	516.6	390.6	312.2	287.5
47.5°	551.3	475.5	345.9	269.3	244.6
50°	514.8	435.4	302.1	227.3	205.4
52.5°	478.3	395.2	261.0	187.1	167.9
55°	441.8	354.1	219.1	151.5	133.3
57.5°	405.3	314.0	179.8	118.7	102.2
60°	367.8	272.9	142.4	87.6	83.1
62.5°	330.4	232.7	110.4	72.1	68.5
65°	292.1	191.7	79.4	58.4	54.8
67.5°	253.7	154.3	57.5	44.7	42.0
70°	213.6	117.7	44.7	33.8	31.0
72.5°	175.2	84.9	31.9	24.6	23.7
75°	140.6	54.8	21.9	18.3	18.3
77.5°	105.9	32.9	15.5	13.7	13.7
80°	73.9	19.2	11.0	10.0	10.0
82.5°	44.7	10.0	7.3	6.4	6.4
85°	19.2	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	17.91	19.35	18.27	19.67	19.98	10.55	11.99	10.91	12.30	12.62
	3H	19.47	20.75	19.84	21.08	21.44	11.11	12.40	11.49	12.73	13.09
	4H	19.99	21.19	20.39	21.54	21.92	11.23	12.44	11.63	12.79	13.17
	6H	20.33	21.43	20.74	21.80	22.19	11.30	12.41	11.71	12.77	13.17
	8H	20.41	21.46	20.84	21.85	22.25	11.30	12.35	11.73	12.74	13.15
	12H	20.43	21.44	20.86	21.82	22.25	11.29	12.30	11.73	12.68	13.11
4H	2H	17.80	19.01	18.20	19.36	19.74	11.11	12.31	11.51	12.66	13.04
	3H	19.47	20.46	19.88	20.86	21.26	11.78	12.77	12.19	13.17	13.57
	4H	20.02	20.90	20.45	21.32	21.76	11.94	12.82	12.37	13.24	13.68
	6H	20.41	21.18	20.87	21.62	22.08	12.05	12.82	12.51	13.26	13.72
	8H	20.52	21.23	20.98	21.68	22.14	12.06	12.78	12.53	13.22	13.69
	12H	20.56	21.20	21.05	21.68	22.15	12.07	12.70	12.55	13.18	13.65
8H	4H	19.92	20.64	20.39	21.08	21.55	12.21	12.92	12.68	13.37	13.84
	6H	20.31	20.89	20.81	21.39	21.87	12.34	12.93	12.84	13.42	13.90
	8H	20.42	20.94	20.93	21.45	21.94	12.37	12.90	12.89	13.41	13.90
	12H	20.48	20.94	20.99	21.44	22.01	12.39	12.86	12.91	13.35	13.92
12H	4H	19.89	20.52	20.37	21.00	21.47	12.23	12.86	12.71	13.34	13.81
	6H	20.26	20.78	20.77	21.29	21.78	12.36	12.88	12.87	13.39	13.88
	8H	20.38	20.85	20.90	21.34	21.91	12.41	12.88	12.93	13.37	13.94