

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: P1056593

Luminaire Tested: S125R3DR-H610D935-X4F0-XX-UDD-F-S

Issue Date: 7/25/2025

Test Information

Test Method: LM-79-2024
Report Number: P1056593
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-H610D935-X4F0-XX-UDD-F-S
Description: DEFINE 5, SILVER 3-INCH REGRESSED DIRECT RECESSED HOUSING WITH FROSTED LENS
HIGH PERFORMANCE LIGHT ENGINE
Light Source: 3500K CCT, 90 CRI LEDS
Ballast/Driver: -

Summary

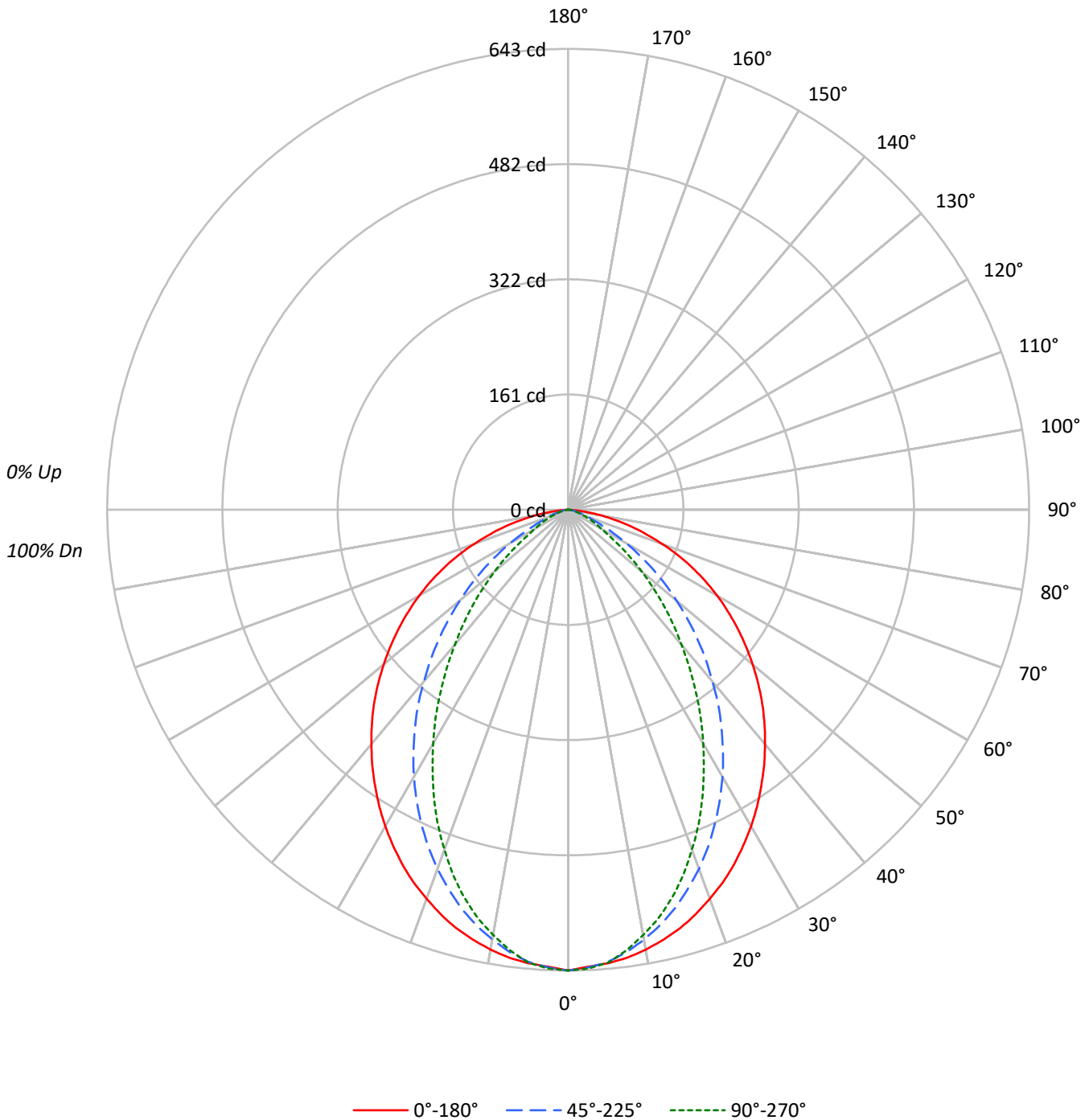
Lumens per Lamp: N/A
Luminaire Lumens: 1162.1 lumens
Efficiency: N/A
Efficacy: 67.2 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 0.95 / 1.11
Luminous Opening: Rectangular (W 0.39' x L: 3.9' x H: 0')
CIE Type: Direct

Input Watts (W): 17.3
Input Voltage (V): 120
Input Current (A_{in}): 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	0		
RCR																										
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100					100			
1	111	107	103	100	108	105	102	99	101	98	96	97	95	93	93	92	90	88					88			
2	102	96	90	85	100	94	89	84	90	86	82	87	84	80	84	81	79	77					77			
3	95	86	79	73	92	84	78	73	81	76	71	79	74	70	76	72	69	67					67			
4	88	77	70	64	86	76	69	63	74	67	62	71	66	62	69	65	61	59					59			
5	81	70	62	56	79	69	61	56	67	60	55	65	59	55	63	58	54	52					52			
6	76	64	56	50	74	63	55	50	61	54	49	60	54	49	58	53	49	47					47			
7	71	58	50	45	69	58	50	45	56	49	44	55	49	44	54	48	44	42					42			
8	66	54	46	41	65	53	46	41	52	45	40	51	45	40	50	44	40	38					38			
9	62	50	42	37	61	49	42	37	48	41	37	47	41	37	46	41	36	35					35			
10	58	46	39	34	57	46	39	34	45	38	34	44	38	34	43	38	34	32					32			

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	4546	4546	4546
5°	4508	4495	4503
10°	4474	4372	4325
15°	4423	4213	4100
20°	4345	4013	3798
25°	4263	3775	3455
30°	4165	3513	3076
35°	4054	3216	2677
40°	3940	2889	2264
45°	3827	2547	1875
50°	3693	2168	1474
55°	3551	1761	1071
60°	3392	1313	766
65°	3187	866	597
70°	2879	604	418
75°	2505	391	325
80°	1962	289	265
85°	1014	243	195

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 3827 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	59.9	5.2
10°-20°	162.8	14.0
20°-30°	225.1	19.4
30°-40°	238.5	20.5
40°-50°	208.2	17.9
50°-60°	148.1	12.7
60°-70°	82.3	7.1
70°-80°	31.6	2.7
80°-90°	5.5	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°	447.8	38.5
0°-40°	686.4	59.1
0°-60°	1042.6	89.7
0°-90°	1162.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1162.1	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	643	643	643	643	643	
5°	635	640	633	632	635	60
15°	604	599	576	563	560	170
25°	546	528	484	454	443	252
35°	470	438	373	327	310	294
45°	383	337	255	204	188	295
55°	288	231	143	99	87	258
65°	190	125	52	38	36	188
75°	92	36	14	12	12	97
85°	12	4	3	2	2	19
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	643.0	643.0	643.0	643.0	643.0
2.5°	638.2	644.8	639.4	640.0	640.6
5°	635.2	640.0	633.4	631.7	634.6
7.5°	630.5	634.0	622.7	618.6	620.3
10°	623.3	624.5	609.0	603.1	602.5
12.5°	614.4	612.6	593.6	584.0	583.4
15°	604.3	598.9	575.7	563.2	560.2
17.5°	591.8	583.4	554.9	538.8	534.0
20°	577.5	566.2	533.4	512.6	504.8
22.5°	563.2	547.7	509.6	483.4	475.1
25°	546.5	528.1	484.0	454.2	442.9
27.5°	528.7	506.6	457.8	423.3	409.6
30°	510.2	484.6	430.4	391.7	376.8
32.5°	490.6	461.4	401.9	359.6	344.1
35°	469.7	437.6	372.7	327.4	310.2
37.5°	448.9	413.2	344.1	295.9	278.0
40°	426.9	388.2	313.1	263.7	245.3
42.5°	405.4	362.6	284.0	233.4	216.7
45°	382.8	337.0	254.8	203.6	187.5
47.5°	359.6	310.2	225.6	175.6	159.6
50°	335.8	284.0	197.1	148.2	134.0
52.5°	312.0	257.8	170.3	122.0	109.5
55°	288.1	231.0	142.9	98.8	86.9
57.5°	264.3	204.8	117.3	77.4	66.7
60°	239.9	178.0	92.9	57.2	54.2
62.5°	215.5	151.8	72.0	47.0	44.7
65°	190.5	125.0	51.8	38.1	35.7
67.5°	165.5	100.6	37.5	29.2	27.4
70°	139.3	76.8	29.2	22.0	20.2
72.5°	114.3	55.4	20.8	16.1	15.5
75°	91.7	35.7	14.3	11.9	11.9
77.5°	69.1	21.4	10.1	8.9	8.9
80°	48.2	12.5	7.1	6.5	6.5
82.5°	29.2	6.5	4.8	4.2	4.2
85°	12.5	3.6	3.0	2.4	2.4
87.5°	2.4	1.2	1.2	1.2	1.2
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	16.42	17.87	16.79	18.18	18.49	9.06	10.51	9.43	10.82	11.13
	3H	17.98	19.27	18.36	19.60	19.96	9.62	10.91	10.00	11.24	11.60
	4H	18.50	19.70	18.90	20.05	20.43	9.75	10.95	10.15	11.30	11.68
	6H	18.84	19.95	19.25	20.32	20.71	9.81	10.92	10.23	11.29	11.68
	8H	18.92	19.97	19.35	20.36	20.77	9.82	10.87	10.25	11.26	11.66
	12H	18.95	19.95	19.38	20.33	20.76	9.81	10.81	10.24	11.20	11.63
4H	2H	16.32	17.52	16.72	17.87	18.25	9.63	10.83	10.03	11.18	11.56
	3H	17.98	18.97	18.40	19.37	19.78	10.30	11.29	10.71	11.69	12.09
	4H	18.53	19.42	18.97	19.83	20.28	10.46	11.34	10.89	11.76	12.20
	6H	18.93	19.69	19.39	20.14	20.60	10.57	11.33	11.02	11.77	12.24
	8H	19.03	19.74	19.50	20.19	20.66	10.58	11.29	11.04	11.74	12.20
	12H	19.08	19.71	19.56	20.19	20.67	10.58	11.21	11.06	11.69	12.17
8H	4H	18.44	19.15	18.90	19.60	20.07	10.72	11.44	11.19	11.88	12.35
	6H	18.82	19.41	19.32	19.90	20.38	10.86	11.44	11.36	11.93	12.41
	8H	18.93	19.46	19.45	19.97	20.46	10.88	11.41	11.40	11.92	12.41
	12H	19.00	19.46	19.51	19.95	20.52	10.91	11.37	11.42	11.86	12.43
12H	4H	18.40	19.03	18.89	19.51	19.99	10.74	11.37	11.22	11.85	12.33
	6H	18.77	19.30	19.29	19.81	20.30	10.87	11.39	11.39	11.91	12.40
	8H	18.90	19.36	19.41	19.86	20.42	10.93	11.39	11.44	11.88	12.45