

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: P1056440

Luminaire Tested: S125R3DR-S610D830-X4F0-XX-UDD-F-S

Issue Date: 7/25/2025

Test Information

Test Method: LM-79-2024
Report Number: P1056440
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-S610D830-X4F0-XX-UDD-F-S
Description: DEFINE 5, SILVER 3-INCH REGRESSED DIRECT RECESSED HOUSING WITH FROSTED LENS
CORE LIGHT ENGINE
Light Source: 3000K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

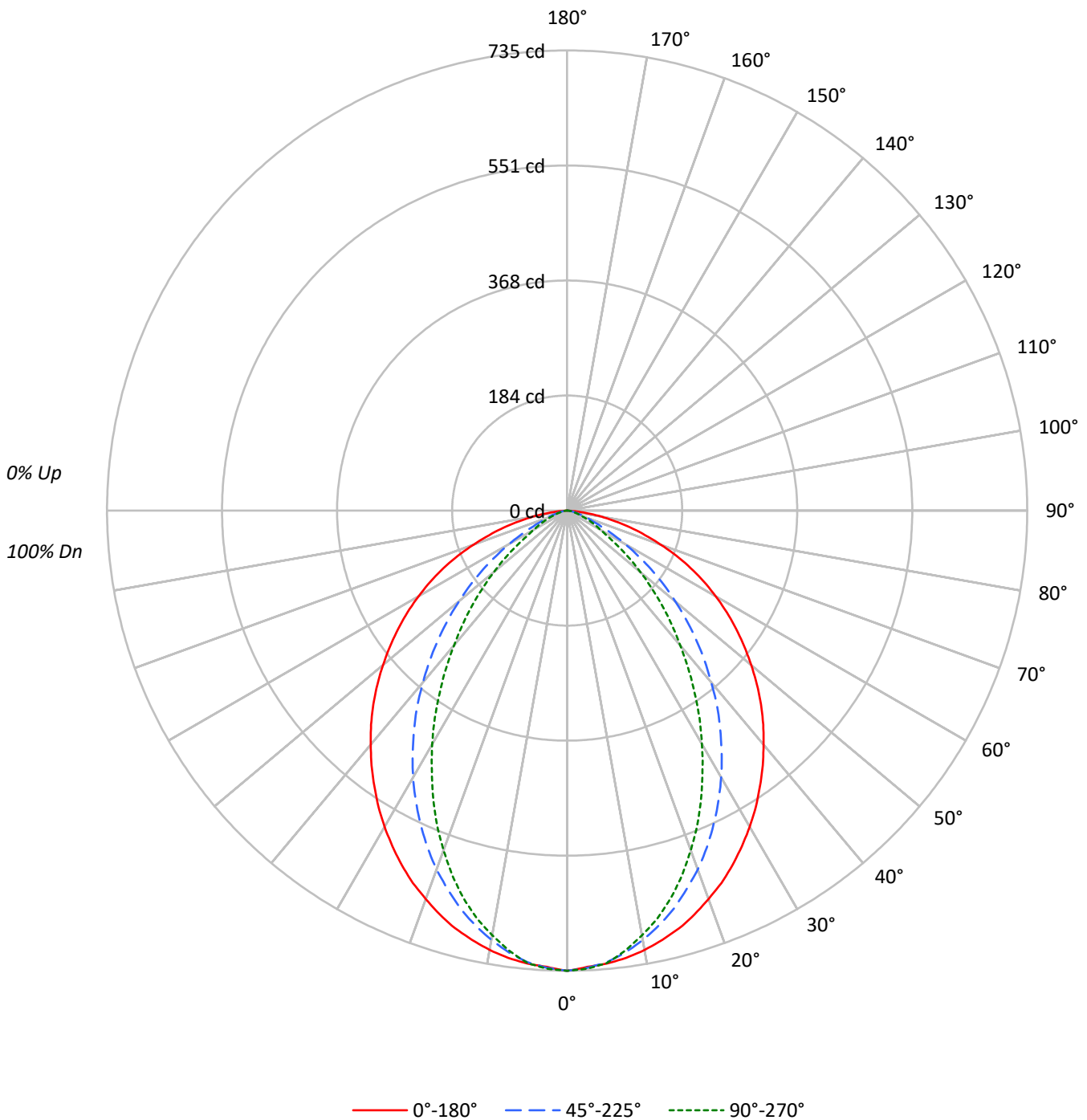
Lumens per Lamp: N/A
Luminaire Lumens: 1328.6 lumens
Efficiency: N/A
Efficacy: 69.6 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 0.95 / 1.11
Luminous Opening: Rectangular (W 0.39' x L: 3.9' x H: 0')
CIE Type: Direct

Input Watts (W): 19.1
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	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°	5197	5197	5197
5°	5154	5139	5149
10°	5115	4998	4944
15°	5057	4817	4688
20°	4967	4588	4342
25°	4874	4317	3950
30°	4761	4017	3517
35°	4634	3677	3060
40°	4503	3304	2588
45°	4376	2912	2143
50°	4222	2478	1684
55°	4060	2014	1225
60°	3878	1502	875
65°	3643	990	682
70°	3293	690	477
75°	2862	445	371
80°	2243	334	305
85°	1160	276	219

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 4376 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	68.5	5.2
10°-20°	186.1	14.0
20°-30°	257.4	19.4
30°-40°	272.7	20.5
40°-50°	238.0	17.9
50°-60°	169.3	12.7
60°-70°	94.1	7.1
70°-80°	36.2	2.7
80°-90°	6.3	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°	512.0	38.5
0°-40°	784.7	59.1
0°-60°	1192.0	89.7
0°-90°	1328.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1328.6	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	735	735	735	735	735	
5°	726	732	724	722	726	69
15°	691	685	658	644	640	195
25°	625	604	553	519	506	288
35°	537	500	426	374	355	336
45°	438	385	291	233	214	337
55°	329	264	163	113	99	295
65°	218	143	59	44	41	215
75°	105	41	16	14	14	111
85°	14	4	3	3	3	21
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	735.1	735.1	735.1	735.1	735.1
2.5°	729.7	737.1	731.0	731.7	732.4
5°	726.3	731.7	724.2	722.2	725.6
7.5°	720.8	724.9	712.0	707.2	709.2
10°	712.6	714.0	696.3	689.5	688.8
12.5°	702.4	700.4	678.6	667.7	667.0
15°	690.9	684.7	658.2	643.9	640.5
17.5°	676.6	667.0	634.4	616.0	610.5
20°	660.2	647.3	609.9	586.0	577.2
22.5°	643.9	626.2	582.6	552.7	543.2
25°	624.8	603.7	553.4	519.3	506.4
27.5°	604.4	579.2	523.4	483.9	468.3
30°	583.3	554.0	492.1	447.9	430.9
32.5°	560.9	527.5	459.4	411.1	393.4
35°	537.0	500.3	426.1	374.4	354.6
37.5°	513.2	472.4	393.4	338.3	317.9
40°	488.0	443.8	358.0	301.5	280.4
42.5°	463.5	414.5	324.7	266.8	247.8
45°	437.7	385.2	291.3	232.8	214.4
47.5°	411.1	354.6	258.0	200.8	182.4
50°	383.9	324.7	225.3	169.5	153.1
52.5°	356.7	294.7	194.7	139.5	125.2
55°	329.4	264.1	163.4	113.0	99.4
57.5°	302.2	234.1	134.1	88.5	76.2
60°	274.3	203.5	106.2	65.3	61.9
62.5°	246.4	173.6	82.4	53.8	51.0
65°	217.8	142.9	59.2	43.6	40.8
67.5°	189.2	115.0	42.9	33.4	31.3
70°	159.3	87.8	33.4	25.2	23.1
72.5°	130.7	63.3	23.8	18.4	17.7
75°	104.8	40.8	16.3	13.6	13.6
77.5°	79.0	24.5	11.6	10.2	10.2
80°	55.1	14.3	8.2	7.5	7.5
82.5°	33.4	7.5	5.4	4.8	4.8
85°	14.3	4.1	3.4	2.7	2.7
87.5°	2.7	1.4	1.4	1.4	1.4
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	16.89	18.33	17.25	18.64	18.96	9.53	10.97	9.89	11.28	11.60
	3H	18.45	19.73	18.82	20.06	20.42	10.09	11.38	10.47	11.70	12.07
	4H	18.97	20.17	19.37	20.52	20.90	10.21	11.42	10.61	11.76	12.15
	6H	19.30	20.41	19.72	20.78	21.17	10.28	11.39	10.69	11.75	12.15
	8H	19.39	20.44	19.82	20.83	21.23	10.28	11.33	10.71	11.73	12.13
	12H	19.41	20.42	19.84	20.80	21.23	10.27	11.28	10.71	11.66	12.09
4H	2H	16.78	17.98	17.18	18.33	18.71	10.09	11.29	10.49	11.64	12.02
	3H	18.45	19.44	18.86	19.84	20.24	10.76	11.75	11.17	12.15	12.55
	4H	19.00	19.88	19.43	20.30	20.74	10.92	11.80	11.35	12.22	12.66
	6H	19.39	20.16	19.85	20.60	21.06	11.03	11.80	11.49	12.24	12.70
	8H	19.50	20.21	19.96	20.66	21.12	11.04	11.76	11.51	12.20	12.67
	12H	19.54	20.18	20.03	20.66	21.13	11.05	11.68	11.53	12.16	12.63
8H	4H	18.90	19.62	19.37	20.06	20.53	11.19	11.90	11.66	12.35	12.82
	6H	19.29	19.87	19.79	20.37	20.85	11.32	11.91	11.82	12.40	12.88
	8H	19.40	19.92	19.91	20.43	20.92	11.35	11.88	11.87	12.39	12.88
	12H	19.46	19.92	19.97	20.42	20.99	11.37	11.84	11.89	12.33	12.90
12H	4H	18.87	19.50	19.35	19.98	20.45	11.20	11.84	11.69	12.32	12.79
	6H	19.24	19.76	19.75	20.27	20.76	11.34	11.86	11.85	12.37	12.86
	8H	19.36	19.83	19.88	20.32	20.89	11.39	11.86	11.91	12.35	12.92