

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



Scaled data based on original data using
LM-79-2019 Approved Method: Electrical and Photometric Measurements of Solid-
State Lighting Products

Test Report Prepared for
Cooper Lighting Solutions

Brand: NEO-RAY

Report Number: P1056586

Luminaire Tested: S125R3DR-H610D927-X4F0-XX-UDD-FLL-B

Issue Date: 7/25/2025

Test Information

Test Method: LM-79-2019
Report Number: P1056586
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2503-402-11)
Test Lab: INNOVATION CENTER
Issue Date: 7/25/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S125R3DR-H610D927-X4F0-XX-UDD-FLL-B
Description: DEFINE 5, BLACK 3-INCH REGRESSED DIRECT RECESSED HOUSING WITH FROSTED LENS
HIGH PERFORMANCE LIGHT ENGINE
Light Source: 2700K CCT, 90 CRI LEDS
Ballast/Driver: -

Summary

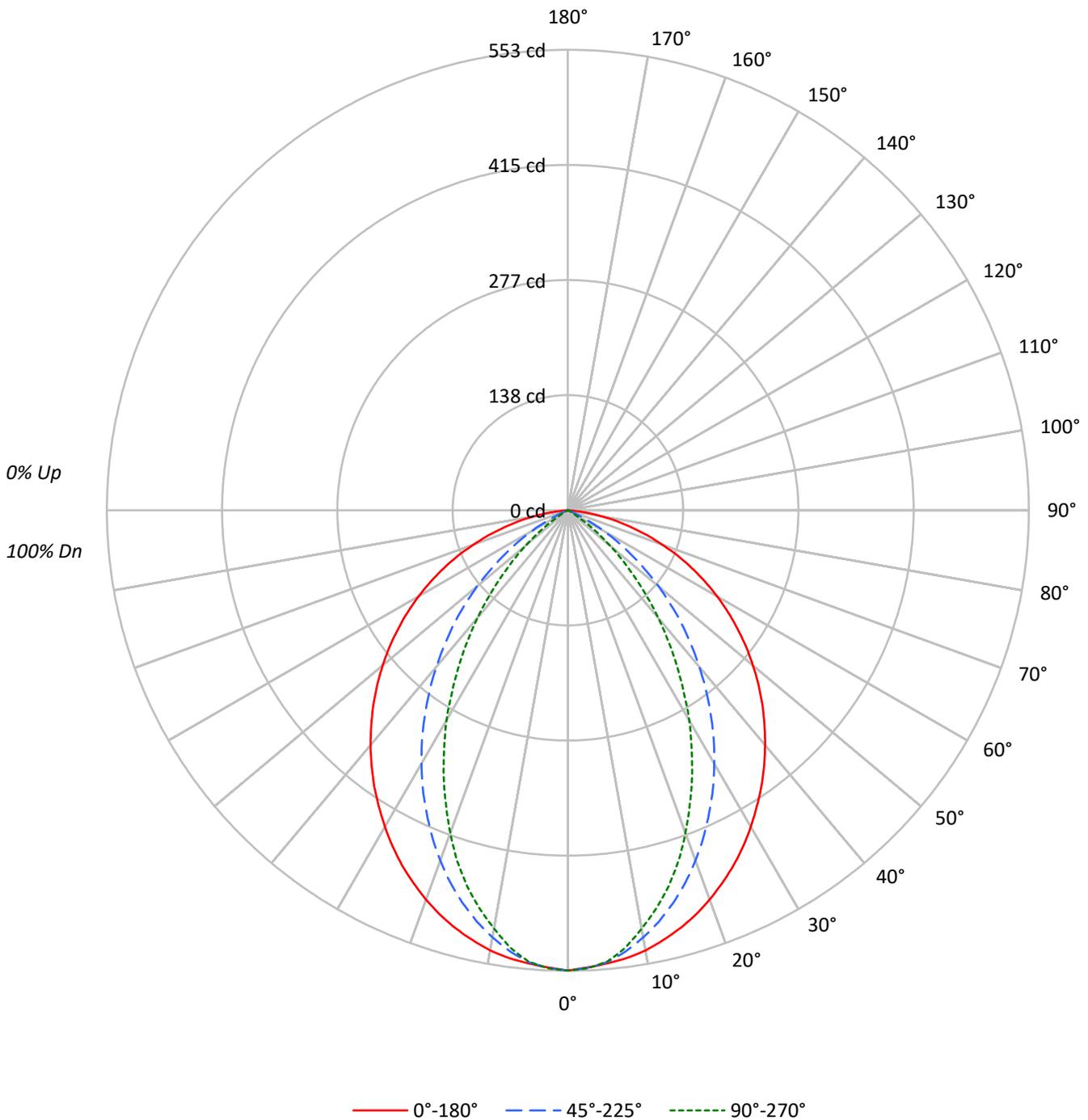
Lumens per Lamp: N/A
Luminaire Lumens: 895.8 lumens
Efficiency: N/A
Efficacy: 51.8 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 0.89 / 1.07
Luminous Opening: Rectangular (W 0.39' x L: 3.9' x H: 0')
CIE Type: Direct

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

TEST NUMBER: P1056586

CATALOG NUMBER: S125R3DR-H610D927-X4F0-XX-UDD-FLL-B

Luminous Intensity Polar Plot





TEST NUMBER: P1056586

CATALOG NUMBER: S125R3DR-H610D927-X4F0-XX-UDD-FLL-B

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	108	104	101	109	106	103	100	101	99	97	98	96	94	94	93	91	89
2	103	97	91	87	101	95	90	86	92	88	84	89	85	82	86	83	80	78
3	96	87	81	75	94	86	80	75	83	78	74	80	76	72	78	74	71	69
4	89	79	72	66	87	78	71	66	76	70	65	73	68	64	71	67	63	61
5	83	72	64	59	81	71	64	58	69	63	58	67	62	57	65	61	57	55
6	77	66	58	53	76	65	58	52	63	57	52	62	56	52	60	55	51	49
7	72	61	53	47	71	60	52	47	58	52	47	57	51	47	56	50	46	45
8	68	56	48	43	66	55	48	43	54	47	43	53	47	43	52	46	42	41
9	64	52	44	39	62	51	44	39	50	44	39	49	43	39	48	43	39	37
10	60	48	41	36	59	48	41	36	47	40	36	46	40	36	45	40	36	34

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	3907	3907	3907
5°	3875	3864	3860
10°	3853	3739	3661
15°	3804	3572	3419
20°	3742	3367	3103
25°	3670	3128	2752
30°	3582	2866	2379
35°	3493	2576	1967
40°	3397	2265	1557
45°	3296	1934	1128
50°	3187	1561	729
55°	3065	1141	324
60°	2920	704	93
65°	2740	256	55
70°	2480	91	23
75°	2155	30	14
80°	1649	20	0
85°	754	0	0

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 3296 cd/sqm

TEST NUMBER: P1056586

CATALOG NUMBER: S125R3DR-H610D927-X4F0-XX-UDD-FLL-B

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	51.3	5.7
10°-20°	137.8	15.4
20°-30°	186.5	20.8
30°-40°	191.6	21.4
40°-50°	158.7	17.7
50°-60°	101.9	11.4
60°-70°	49.2	5.5
70°-80°	16.6	1.9
80°-90°	2.1	0.2
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°	375.7	41.9
0°-40°	567.2	63.3
0°-60°	827.8	92.4
0°-90°	895.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	895.8	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	553	553	553	553	553	
5°	546	550	544	541	544	52
15°	520	513	488	471	467	146
25°	470	448	401	365	353	217
35°	405	366	298	246	228	253
45°	330	276	193	134	113	254
55°	249	182	93	40	26	222
65°	164	90	15	4	3	162
75°	79	17	1	0	0	84
85°	9	0	0	0	0	15
90°	0	0	0	0	0	



TEST NUMBER: P1056586

CATALOG NUMBER: S125R3DR-H610D927-X4F0-XX-UDD-FLL-B

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	552.7	552.7	552.7	552.7	552.7
2.5°	549.4	553.8	549.9	549.4	550.5
5°	546.1	550.5	544.5	541.2	543.9
7.5°	542.3	544.5	534.1	528.6	529.7
10°	536.8	536.3	520.9	511.6	510.0
12.5°	528.6	525.8	505.6	492.4	489.7
15°	519.8	513.2	488.1	471.1	467.2
17.5°	509.4	499.0	468.9	447.0	441.5
20°	497.4	483.1	447.5	420.7	412.5
22.5°	484.2	466.1	425.1	393.3	382.3
25°	470.5	447.5	401.0	364.8	352.8
27.5°	455.2	428.3	376.9	335.8	321.0
30°	438.8	408.1	351.1	306.2	291.4
32.5°	421.8	387.8	325.4	276.6	258.5
35°	404.8	365.9	298.5	246.5	227.9
37.5°	386.7	344.0	272.2	218.0	197.7
40°	368.1	321.5	245.4	188.4	168.7
42.5°	348.9	298.5	218.6	160.5	140.2
45°	329.7	275.5	193.4	133.7	112.8
47.5°	310.0	252.0	167.1	107.4	89.3
50°	289.8	229.0	141.9	83.8	66.3
52.5°	269.5	205.4	116.1	60.8	44.9
55°	248.7	182.4	92.6	40.5	26.3
57.5°	227.9	158.8	70.7	22.5	9.9
60°	206.5	136.4	49.8	7.7	6.6
62.5°	185.7	112.3	31.2	6.0	4.9
65°	163.8	90.4	15.3	4.4	3.3
67.5°	142.4	69.6	6.6	2.7	1.6
70°	120.0	50.4	4.4	1.6	1.1
72.5°	99.1	32.3	2.7	1.1	0.5
75°	78.9	17.0	1.1	0.5	0.5
77.5°	59.2	7.1	0.5	0.5	0.5
80°	40.5	3.3	0.5	0.5	0.0
82.5°	24.1	1.1	0.5	0.5	0.0
85°	9.3	0.0	0.0	0.0	0.0
87.5°	0.5	0.0	0.0	0.0	0.0
90°	0.0	0.0	0.0	0.0	0.0



TEST NUMBER: P1056586

CATALOG NUMBER: S125R3DR-H610D927-X4F0-XX-UDD-FLL-B

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	15.80	17.19	16.17	17.50	17.81	0.68	2.07	1.05	2.38	2.70
	3H	17.35	18.58	17.73	18.91	19.27	0.60	1.83	0.98	2.16	2.52
	4H	17.88	19.02	18.28	19.37	19.75	0.54	1.68	0.94	2.03	2.41
	6H	18.21	19.27	18.63	19.64	20.03	0.46	1.52	0.88	1.89	2.28
	8H	18.30	19.29	18.73	19.68	20.09	0.42	1.42	0.85	1.81	2.21
	12H	18.31	19.27	18.75	19.65	20.08	0.38	1.34	0.82	1.72	2.15
4H	2H	15.61	16.75	16.01	17.10	17.48	1.54	2.68	1.94	3.03	3.42
	3H	17.22	18.15	17.63	18.56	18.96	1.49	2.42	1.90	2.82	3.23
	4H	17.74	18.58	18.18	18.99	19.44	1.41	2.24	1.84	2.66	3.10
	6H	18.12	18.84	18.58	19.28	19.75	1.34	2.06	1.80	2.50	2.97
	8H	18.22	18.89	18.68	19.33	19.80	1.29	1.96	1.76	2.41	2.88
	12H	18.25	18.85	18.74	19.33	19.80	1.25	1.84	1.73	2.32	2.80
8H	4H	17.62	18.29	18.08	18.73	19.20	2.43	3.10	2.90	3.54	4.01
	6H	17.97	18.52	18.47	19.01	19.49	2.34	2.89	2.84	3.39	3.87
	8H	18.07	18.56	18.59	19.07	19.56	2.29	2.78	2.81	3.29	3.79
	12H	18.11	18.54	18.62	19.04	19.61	2.25	2.68	2.76	3.18	3.75
12H	4H	17.57	18.17	18.06	18.65	19.12	2.50	3.10	2.99	3.58	4.05
	6H	17.91	18.40	18.43	18.92	19.41	2.40	2.90	2.92	3.41	3.90
	8H	18.02	18.46	18.54	18.95	19.52	2.37	2.81	2.88	3.30	3.87