

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: P1056598

Luminaire Tested: S125R3DR-H610D950-X4F0-XX-UDD-F-B

Issue Date: 7/25/2025

Test Information

Test Method: LM-79-2024
Report Number: P1056598
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-H610D950-X4F0-XX-UDD-F-B
Description: DEFINE 5, BLACK 3-INCH REGRESSED DIRECT RECESSED HOUSING WITH FROSTED LENS
HIGH PERFORMANCE LIGHT ENGINE
Light Source: 5000K CCT, 90 CRI LEDS
Ballast/Driver: -

Summary

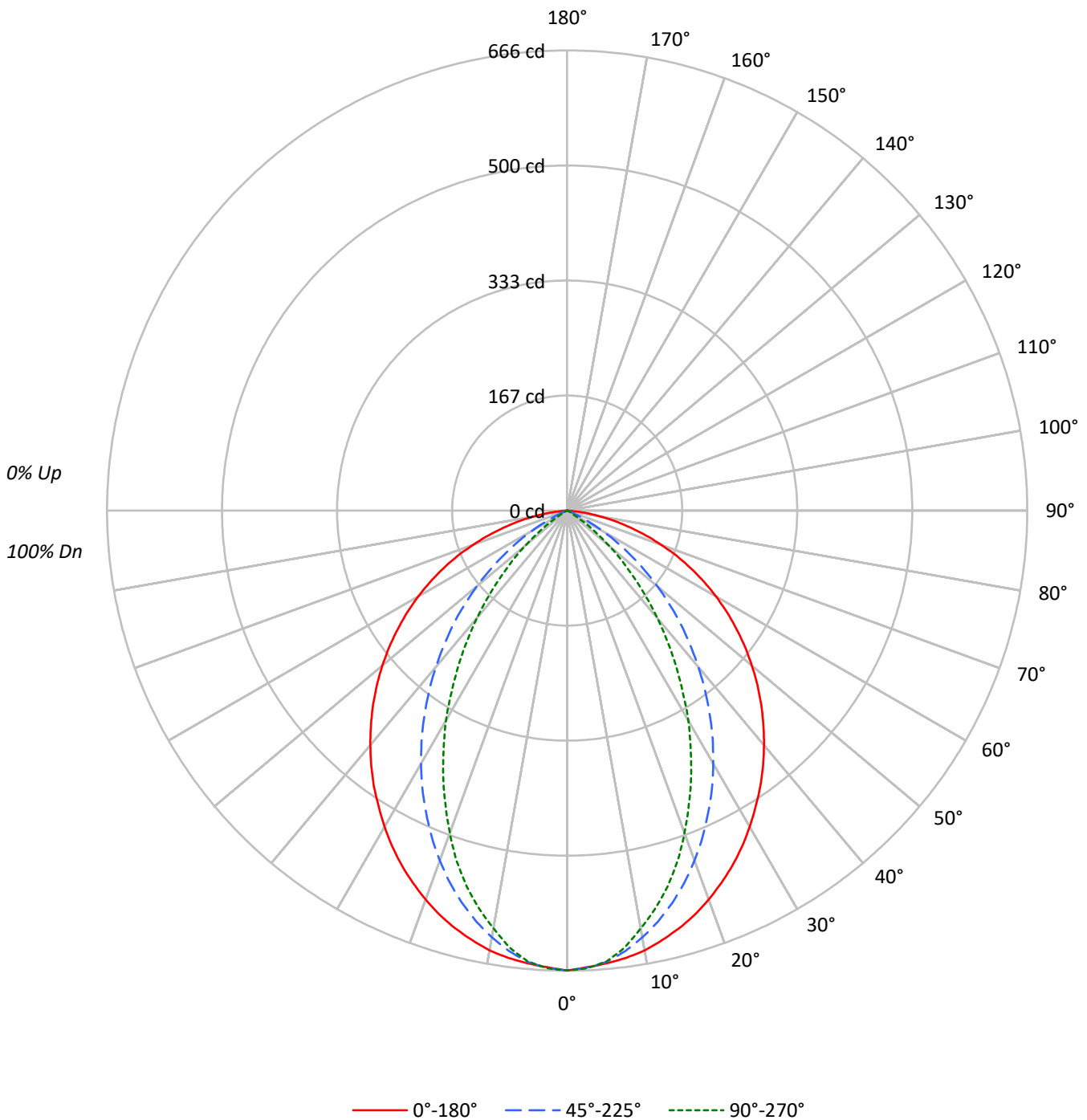
Lumens per Lamp: N/A
Luminaire Lumens: 1078.8 lumens
Efficiency: N/A
Efficacy: 62.4 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 0.89 / 1.07
Luminous Opening: Rectangular (W 0.39' x L: 3.9' x H: 0')
CIE Type: Direct

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: P1056598

CATALOG NUMBER: S125R3DR-H610D950-X4F0-XX-UDD-F-B

Luminous Intensity Polar Plot





TEST NUMBER: P1056598

CATALOG NUMBER: S125R3DR-H610D950-X4F0-XX-UDD-F-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	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	108	104	101	109	106	103	100	101	99	97	98	96	94	94	93	91	89					89			
2	103	97	91	87	101	95	90	86	92	88	84	89	85	82	86	83	80	78					78			
3	96	87	81	75	94	86	80	75	83	78	74	80	76	72	78	74	71	69					69			
4	89	79	72	66	87	78	71	66	76	70	65	73	68	64	71	67	63	61					61			
5	83	72	64	59	81	71	64	58	69	63	58	67	62	57	65	61	57	55					55			
6	77	66	58	53	76	65	58	52	63	57	52	62	56	52	60	55	51	49					49			
7	72	61	53	47	71	60	52	47	58	52	47	57	51	47	56	50	46	45					45			
8	68	56	48	43	66	55	48	43	54	47	43	53	47	43	52	46	42	41					41			
9	64	52	44	39	62	51	44	39	50	44	39	49	43	39	48	43	39	37					37			
10	60	48	41	36	59	48	41	36	47	40	36	46	40	36	45	40	36	34					34			

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	4705	4705	4705
5°	4667	4653	4648
10°	4641	4503	4408
15°	4582	4301	4118
20°	4506	4054	3737
25°	4420	3767	3314
30°	4313	3451	2864
35°	4207	3103	2368
40°	4091	2727	1875
45°	3970	2328	1359
50°	3838	1878	878
55°	3691	1374	391
60°	3516	848	112
65°	3299	309	67
70°	2987	110	27
75°	2595	36	19
80°	1987	28	0
85°	908	0	0

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 3970 cd/sqm



TEST NUMBER: P1056598

CATALOG NUMBER: S125R3DR-H610D950-X4F0-XX-UDD-F-B

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	61.8	5.7
10°-20°	166.0	15.4
20°-30°	224.6	20.8
30°-40°	230.7	21.4
40°-50°	191.1	17.7
50°-60°	122.7	11.4
60°-70°	59.3	5.5
70°-80°	20.1	1.9
80°-90°	2.6	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°	452.4	41.9
0°-40°	683.1	63.3
0°-60°	996.9	92.4
0°-90°	1078.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1078.8	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	666	666	666	666	666	
5°	658	663	656	652	655	62
15°	626	618	588	567	563	176
25°	567	539	483	439	425	261
35°	488	441	360	297	274	305
45°	397	332	233	161	136	306
55°	300	220	112	49	32	268
65°	197	109	18	5	4	195
75°	95	20	1	1	1	101
85°	11	0	0	0	0	18
90°	0	0	0	0	0	



TEST NUMBER: P1056598

CATALOG NUMBER: S125R3DR-H610D950-X4F0-XX-UDD-F-B

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	665.6	665.6	665.6	665.6	665.6
2.5°	661.6	666.9	662.3	661.6	662.9
5°	657.7	662.9	655.7	651.7	655.0
7.5°	653.0	655.7	643.2	636.6	637.9
10°	646.5	645.8	627.3	616.1	614.1
12.5°	636.6	633.3	608.9	593.0	589.7
15°	626.0	618.1	587.7	567.3	562.7
17.5°	613.5	600.9	564.7	538.3	531.7
20°	599.0	581.8	538.9	506.6	496.7
22.5°	583.1	561.4	511.9	473.6	460.4
25°	566.6	538.9	482.9	439.3	424.8
27.5°	548.2	515.8	453.8	404.4	386.6
30°	528.4	491.4	422.8	368.7	350.9
32.5°	507.9	467.0	391.8	333.1	311.4
35°	487.5	440.6	359.5	296.8	274.4
37.5°	465.7	414.3	327.8	262.5	238.1
40°	443.3	387.2	295.5	226.9	203.2
42.5°	420.2	359.5	263.2	193.3	168.9
45°	397.1	331.8	232.9	161.0	135.9
47.5°	373.4	303.4	201.2	129.3	107.5
50°	349.0	275.7	170.8	100.9	79.8
52.5°	324.5	247.4	139.8	73.2	54.1
55°	299.5	219.7	111.5	48.8	31.7
57.5°	274.4	191.3	85.1	27.0	11.9
60°	248.7	164.3	60.0	9.2	7.9
62.5°	223.6	135.2	37.6	7.3	5.9
65°	197.2	108.8	18.5	5.3	4.0
67.5°	171.5	83.8	7.9	3.3	2.0
70°	144.5	60.7	5.3	2.0	1.3
72.5°	119.4	38.9	3.3	1.3	0.7
75°	95.0	20.4	1.3	0.7	0.7
77.5°	71.2	8.6	0.7	0.7	0.7
80°	48.8	4.0	0.7	0.7	0.0
82.5°	29.0	1.3	0.7	0.7	0.0
85°	11.2	0.0	0.0	0.0	0.0
87.5°	0.7	0.0	0.0	0.0	0.0
90°	0.0	0.0	0.0	0.0	0.0



TEST NUMBER: P1056598
 CATALOG NUMBER: S125R3DR-H610D950-X4F0-XX-UDD-F-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	16.45	17.83	16.81	18.15	18.46	1.30	2.69	1.67	3.00	3.32
	3H	18.00	19.23	18.38	19.56	19.92	1.23	2.45	1.61	2.78	3.15
	4H	18.52	19.67	18.92	20.02	20.40	1.16	2.31	1.56	2.66	3.04
	6H	18.86	19.91	19.27	20.28	20.67	1.09	2.14	1.51	2.51	2.91
	8H	18.94	19.94	19.37	20.33	20.73	1.05	2.05	1.48	2.44	2.84
	12H	18.96	19.91	19.39	20.29	20.72	1.01	1.96	1.44	2.35	2.78
4H	2H	16.25	17.40	16.65	17.75	18.13	2.17	3.32	2.57	3.67	4.05
	3H	17.87	18.80	18.28	19.20	19.61	2.12	3.06	2.53	3.46	3.86
	4H	18.39	19.22	18.82	19.64	20.08	2.05	2.88	2.48	3.30	3.74
	6H	18.76	19.48	19.23	19.93	20.39	1.98	2.70	2.44	3.15	3.61
	8H	18.86	19.53	19.33	19.98	20.45	1.93	2.60	2.40	3.05	3.52
	12H	18.90	19.49	19.38	19.97	20.45	1.89	2.48	2.37	2.96	3.44
8H	4H	18.26	18.93	18.73	19.38	19.85	3.07	3.74	3.54	4.19	4.66
	6H	18.62	19.16	19.12	19.66	20.14	2.99	3.54	3.49	4.03	4.51
	8H	18.71	19.20	19.23	19.72	20.21	2.94	3.43	3.46	3.94	4.43
	12H	18.75	19.19	19.27	19.68	20.25	2.90	3.33	3.41	3.82	4.39
12H	4H	18.22	18.81	18.70	19.29	19.77	3.15	3.74	3.63	4.22	4.70
	6H	18.56	19.05	19.08	19.56	20.05	3.05	3.54	3.57	4.06	4.55
	8H	18.67	19.10	19.18	19.60	20.17	3.02	3.46	3.53	3.95	4.52