

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: P1056548

Luminaire Tested: S125R3DR-H375D830-X4F0-XX-UDD-F-S

Issue Date: 7/25/2025

**Test Information**

Test Method: LM-79-2024  
Report Number: P1056548  
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-H375D830-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: -

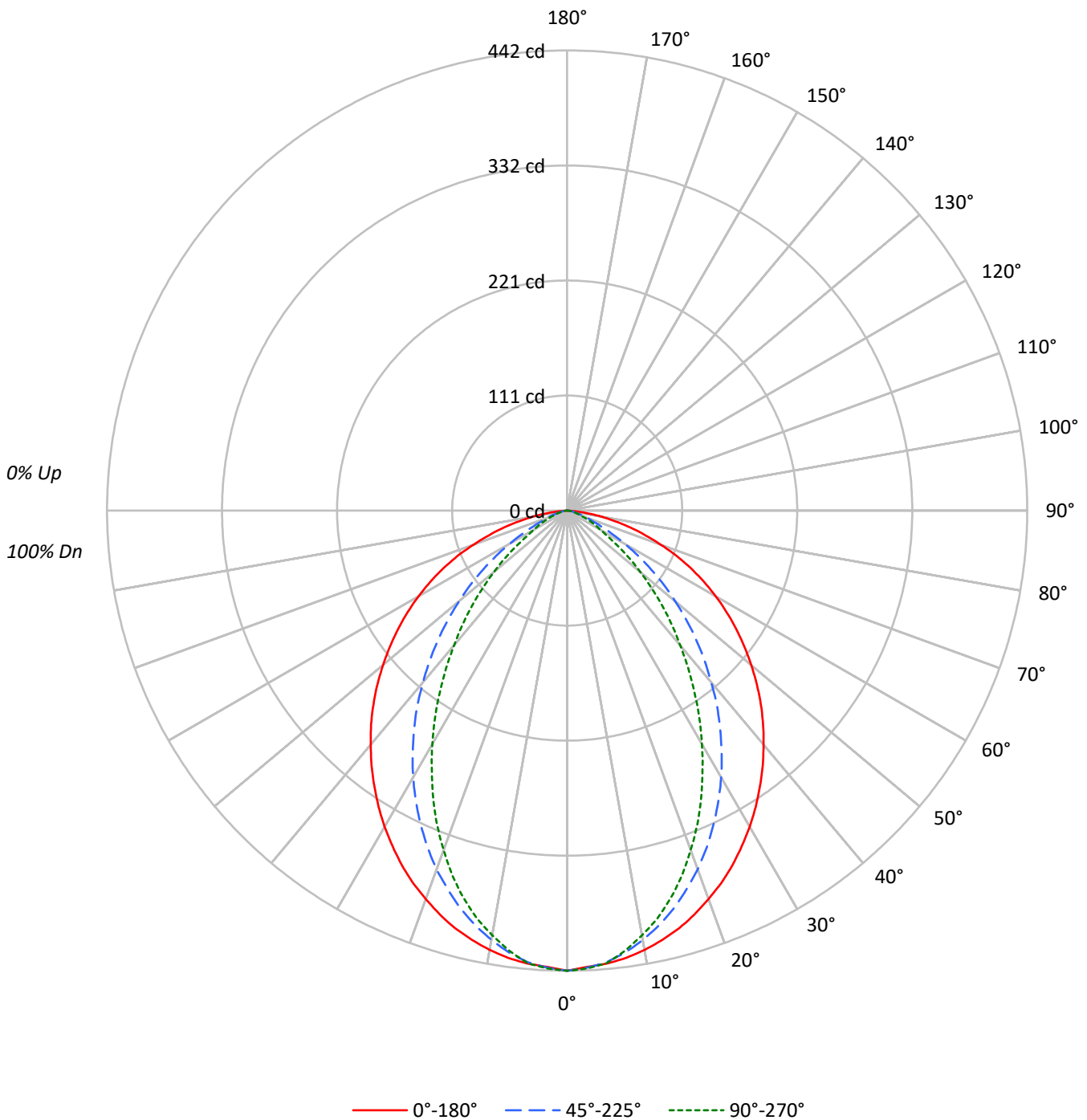
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 798.8 lumens  
Efficiency: N/A  
Efficacy: 68.3 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): 11.7  
Input Voltage (V): 120  
Input Current (A<sub>in</sub>): 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: P1056548

CATALOG NUMBER: S125R3DR-H375D830-X4F0-XX-UDD-F-S

### Luminous Intensity Polar Plot





TEST NUMBER: P1056548

CATALOG NUMBER: S125R3DR-H375D830-X4F0-XX-UDD-F-S

**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°	3125	3125	3125
5°	3099	3090	3096
10°	3076	3006	2973
15°	3040	2896	2818
20°	2987	2759	2610
25°	2931	2595	2375
30°	2863	2415	2115
35°	2787	2211	1840
40°	2708	1987	1556
45°	2630	1752	1289
50°	2538	1490	1013
55°	2442	1210	736
60°	2331	902	526
65°	2191	595	411
70°	1980	415	287
75°	1721	268	224
80°	1348	199	183
85°	698	162	130

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 2630 cd/sqm

TEST NUMBER: P1056548

CATALOG NUMBER: S125R3DR-H375D830-X4F0-XX-UDD-F-S

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	41.2	5.2
10°-20°	111.9	14.0
20°-30°	154.8	19.4
30°-40°	164.0	20.5
40°-50°	143.1	17.9
50°-60°	101.8	12.7
60°-70°	56.6	7.1
70°-80°	21.8	2.7
80°-90°	3.8	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°	307.9	38.5
0°-40°	471.8	59.1
0°-60°	716.7	89.7
0°-90°	798.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	798.8	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	442	442	442	442	442	
5°	437	440	435	434	436	41
15°	415	412	396	387	385	117
25°	376	363	333	312	304	173
35°	323	301	256	225	213	202
45°	263	232	175	140	129	203
55°	198	159	98	68	60	177
65°	131	86	36	26	25	129
75°	63	25	10	8	8	67
85°	9	2	2	2	2	13
90°	0	0	0	0	0	



TEST NUMBER: P1056548

CATALOG NUMBER: S125R3DR-H375D830-X4F0-XX-UDD-F-S

**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	442.0	442.0	442.0	442.0	442.0
2.5°	438.7	443.2	439.5	439.9	440.3
5°	436.7	439.9	435.4	434.2	436.3
7.5°	433.4	435.8	428.1	425.2	426.4
10°	428.5	429.3	418.7	414.6	414.2
12.5°	422.3	421.1	408.0	401.5	401.1
15°	415.4	411.7	395.7	387.1	385.1
17.5°	406.8	401.1	381.4	370.4	367.1
20°	397.0	389.2	366.7	352.4	347.0
22.5°	387.1	376.5	350.3	332.3	326.6
25°	375.7	363.0	332.7	312.3	304.5
27.5°	363.4	348.3	314.7	291.0	281.6
30°	350.7	333.1	295.9	269.3	259.1
32.5°	337.2	317.2	276.2	247.2	236.5
35°	322.9	300.8	256.2	225.1	213.2
37.5°	308.6	284.0	236.5	203.4	191.1
40°	293.4	266.8	215.3	181.3	168.6
42.5°	278.7	249.2	195.2	160.4	149.0
45°	263.1	231.6	175.2	140.0	128.9
47.5°	247.2	213.2	155.1	120.7	109.7
50°	230.8	195.2	135.5	101.9	92.1
52.5°	214.4	177.2	117.0	83.9	75.3
55°	198.1	158.8	98.2	67.9	59.7
57.5°	181.7	140.8	80.6	53.2	45.8
60°	164.9	122.4	63.8	39.3	37.2
62.5°	148.1	104.4	49.5	32.3	30.7
65°	131.0	85.9	35.6	26.2	24.6
67.5°	113.8	69.2	25.8	20.1	18.8
70°	95.8	52.8	20.1	15.1	13.9
72.5°	78.6	38.1	14.3	11.0	10.6
75°	63.0	24.6	9.8	8.2	8.2
77.5°	47.5	14.7	7.0	6.1	6.1
80°	33.1	8.6	4.9	4.5	4.5
82.5°	20.1	4.5	3.3	2.9	2.9
85°	8.6	2.5	2.0	1.6	1.6
87.5°	1.6	0.8	0.8	0.8	0.8
90°	0.0	0.0	0.0	0.0	0.0

TEST NUMBER: P1056548  
 CATALOG NUMBER: S125R3DR-H375D830-X4F0-XX-UDD-F-S

**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	15.12	16.57	15.49	16.88	17.19	7.76	9.20	8.12	9.51	9.83
	3H	16.68	17.97	17.06	18.30	18.66	8.32	9.61	8.70	9.94	10.30
	4H	17.20	18.40	17.60	18.75	19.13	8.44	9.65	8.84	10.00	10.38
	6H	17.54	18.65	17.95	19.01	19.41	8.51	9.62	8.92	9.98	10.38
	8H	17.62	18.67	18.05	19.06	19.47	8.51	9.56	8.94	9.96	10.36
	12H	17.65	18.65	18.08	19.03	19.46	8.50	9.51	8.94	9.89	10.32
4H	2H	15.02	16.22	15.42	16.57	16.95	8.32	9.52	8.72	9.87	10.25
	3H	16.68	17.67	17.10	18.07	18.48	8.99	9.98	9.41	10.38	10.78
	4H	17.23	18.12	17.67	18.53	18.97	9.15	10.03	9.58	10.45	10.89
	6H	17.63	18.39	18.09	18.83	19.30	9.26	10.03	9.72	10.47	10.93
	8H	17.73	18.44	18.20	18.89	19.36	9.27	9.99	9.74	10.43	10.90
	12H	17.78	18.41	18.26	18.89	19.36	9.28	9.91	9.76	10.39	10.86
8H	4H	17.14	17.85	17.60	18.30	18.76	9.42	10.13	9.89	10.58	11.05
	6H	17.52	18.11	18.02	18.60	19.08	9.55	10.14	10.05	10.63	11.11
	8H	17.63	18.16	18.15	18.67	19.16	9.58	10.11	10.10	10.62	11.11
	12H	17.69	18.16	18.21	18.65	19.22	9.60	10.07	10.12	10.56	11.13
12H	4H	17.10	17.73	17.58	18.21	18.69	9.44	10.07	9.92	10.55	11.02
	6H	17.47	18.00	17.99	18.51	19.00	9.57	10.09	10.08	10.60	11.09
	8H	17.60	18.06	18.11	18.56	19.12	9.63	10.09	10.14	10.58	11.15