

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: P1056506

Luminaire Tested: S125R3DR-H1090D927-X4F0-XX-UDD-F-S

Issue Date: 7/25/2025

Test Information

Test Method: LM-79-2024
Report Number: P1056506
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-H1090D927-X4F0-XX-UDD-F-S
Description: DEFINE 5, SILVER 3-INCH REGRESSED DIRECT RECESSED HOUSING WITH FROSTED LENS
HIGH PERFORMANCE LIGHT ENGINE
Light Source: 2700K CCT, 90 CRI LEDS
Ballast/Driver: -

Summary

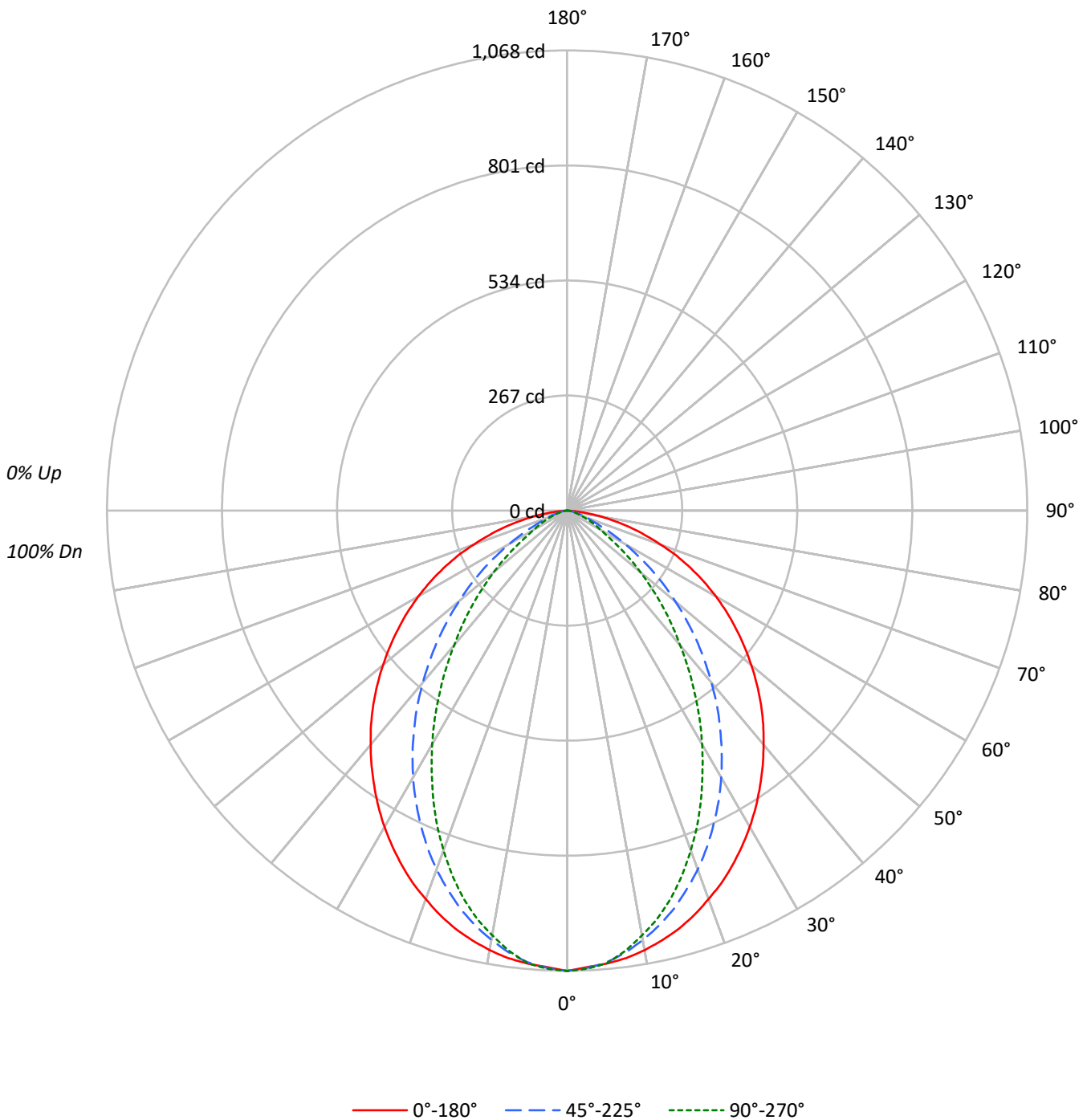
Lumens per Lamp: N/A
Luminaire Lumens: 1931.1 lumens
Efficiency: N/A
Efficacy: 62.5 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 0.95 / 1.11
Luminous Opening: Rectangular (W 0.39' x L: 3.9' x H: 0')
CIE Type: Direct

Input Watts (W): 30.9
Input Voltage (V): 120
Input Current (Ain): 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	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°	7554	7554	7554
5°	7491	7470	7484
10°	7435	7265	7187
15°	7349	7002	6813
20°	7219	6668	6311
25°	7084	6274	5741
30°	6921	5839	5112
35°	6737	5345	4448
40°	6546	4802	3761
45°	6359	4233	3115
50°	6137	3602	2448
55°	5901	2926	1780
60°	5637	2182	1272
65°	5296	1440	994
70°	4785	1002	694
75°	4163	647	541
80°	3261	484	444
85°	1687	397	324

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 6359 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	99.5	5.2
10°-20°	270.6	14.0
20°-30°	374.1	19.4
30°-40°	396.4	20.5
40°-50°	346.0	17.9
50°-60°	246.1	12.7
60°-70°	136.8	7.1
70°-80°	52.6	2.7
80°-90°	9.1	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°	744.2	38.5
0°-40°	1140.6	59.1
0°-60°	1732.6	89.7
0°-90°	1931.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1931.1	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1068	1068	1068	1068	1068	
5°	1056	1064	1053	1050	1055	100
15°	1004	995	957	936	931	283
25°	908	878	804	755	736	418
35°	781	727	619	544	515	488
45°	636	560	423	338	312	490
55°	479	384	237	164	144	428
65°	317	208	86	63	59	313
75°	152	59	24	20	20	162
85°	21	6	5	4	4	31
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1068.5	1068.5	1068.5	1068.5	1068.5
2.5°	1060.5	1071.4	1062.5	1063.5	1064.5
5°	1055.6	1063.5	1052.6	1049.7	1054.6
7.5°	1047.7	1053.6	1034.8	1027.9	1030.9
10°	1035.8	1037.8	1012.1	1002.2	1001.2
12.5°	1021.0	1018.0	986.3	970.5	969.5
15°	1004.2	995.2	956.7	935.9	930.9
17.5°	983.4	969.5	922.0	895.3	887.4
20°	959.6	940.8	886.4	851.8	838.9
22.5°	935.9	910.2	846.9	803.3	789.5
25°	908.2	877.5	804.3	754.8	736.0
27.5°	878.5	841.9	760.8	703.4	680.6
30°	847.8	805.3	715.3	651.0	626.2
32.5°	815.2	766.7	667.8	597.5	571.8
35°	780.6	727.1	619.3	544.1	515.4
37.5°	745.9	686.6	571.8	491.7	462.0
40°	709.3	645.0	520.4	438.3	407.6
42.5°	673.7	602.5	471.9	387.8	360.1
45°	636.1	560.0	423.4	338.3	311.6
47.5°	597.5	515.4	374.9	291.8	265.1
50°	558.0	471.9	327.5	246.3	222.6
52.5°	518.4	428.4	282.9	202.8	182.0
55°	478.8	383.9	237.4	164.2	144.4
57.5°	439.3	340.3	194.9	128.6	110.8
60°	398.7	295.8	154.3	95.0	90.0
62.5°	358.1	252.3	119.7	78.2	74.2
65°	316.6	207.8	86.1	63.3	59.4
67.5°	275.0	167.2	62.3	48.5	45.5
70°	231.5	127.6	48.5	36.6	33.6
72.5°	189.9	92.0	34.6	26.7	25.7
75°	152.4	59.4	23.7	19.8	19.8
77.5°	114.8	35.6	16.8	14.8	14.8
80°	80.1	20.8	11.9	10.9	10.9
82.5°	48.5	10.9	7.9	6.9	6.9
85°	20.8	5.9	4.9	4.0	4.0
87.5°	4.0	2.0	2.0	2.0	2.0
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	18.19	19.63	18.55	19.94	20.26	10.82	12.27	11.19	12.58	12.90
	3H	19.75	21.03	20.12	21.36	21.72	11.39	12.67	11.77	13.00	13.37
	4H	20.27	21.47	20.67	21.82	22.20	11.51	12.71	11.91	13.06	13.44
	6H	20.60	21.71	21.02	22.08	22.47	11.58	12.68	11.99	13.05	13.44
	8H	20.69	21.74	21.12	22.13	22.53	11.58	12.63	12.01	13.02	13.43
	12H	20.71	21.72	21.14	22.10	22.53	11.57	12.58	12.00	12.96	13.39
4H	2H	18.08	19.29	18.48	19.63	20.02	11.39	12.59	11.79	12.94	13.32
	3H	19.75	20.74	20.16	21.14	21.54	12.06	13.05	12.47	13.45	13.85
	4H	20.30	21.18	20.73	21.60	22.04	12.22	13.10	12.65	13.52	13.96
	6H	20.69	21.46	21.15	21.90	22.36	12.33	13.09	12.79	13.54	14.00
	8H	20.80	21.51	21.26	21.95	22.42	12.34	13.06	12.81	13.50	13.97
	12H	20.84	21.48	21.33	21.96	22.43	12.34	12.98	12.83	13.46	13.93
8H	4H	20.20	20.92	20.67	21.36	21.83	12.49	13.20	12.95	13.65	14.12
	6H	20.59	21.17	21.09	21.67	22.15	12.62	13.21	13.12	13.70	14.18
	8H	20.70	21.22	21.21	21.73	22.22	12.65	13.17	13.17	13.69	14.18
	12H	20.76	21.22	21.27	21.72	22.29	12.67	13.14	13.18	13.63	14.20
12H	4H	20.17	20.80	20.65	21.28	21.75	12.50	13.14	12.99	13.62	14.09
	6H	20.54	21.06	21.05	21.57	22.06	12.63	13.16	13.15	13.67	14.16
	8H	20.66	21.13	21.18	21.62	22.19	12.69	13.16	13.20	13.65	14.22