

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: P1056505

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

Issue Date: 7/25/2025

Test Information

Test Method: LM-79-2024
Report Number: P1056505
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-H1090D927-X4F0-XX-UDD-F-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

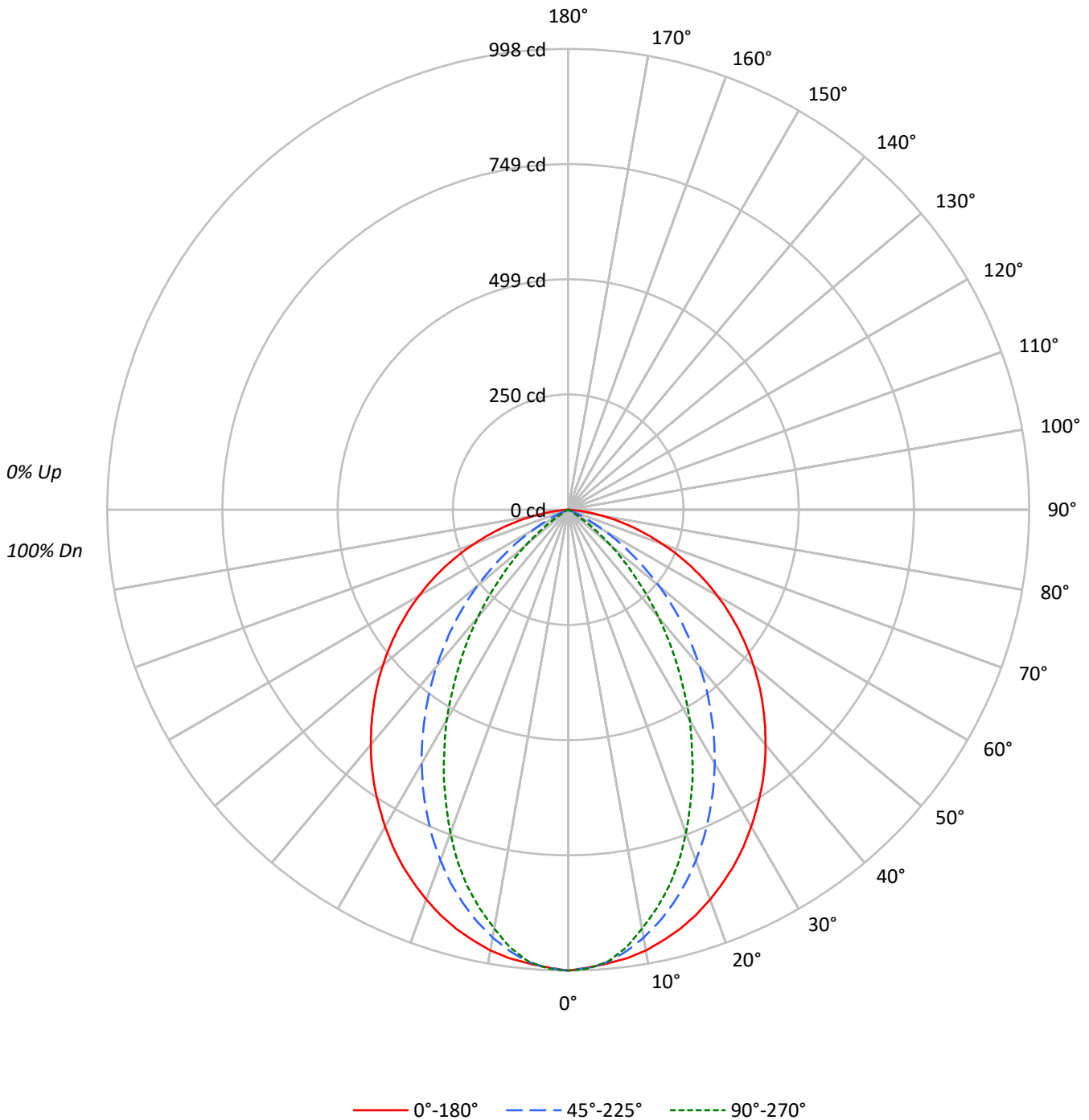
Lumens per Lamp: N/A
Luminaire Lumens: 1618.0 lumens
Efficiency: N/A
Efficacy: 52.4 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 0.89 / 1.07
Luminous Opening: Rectangular (W 0.39' x L: 3.9' x H: 0')
CIE Type: Direct

Input Watts (W): 30.9
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	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°	7057	7057	7057
5°	6999	6979	6971
10°	6959	6753	6612
15°	6872	6451	6176
20°	6758	6081	5605
25°	6629	5649	4969
30°	6468	5177	4296
35°	6309	4653	3552
40°	6135	4090	2812
45°	5955	3491	2038
50°	5755	2818	1316
55°	5535	2061	585
60°	5274	1272	168
65°	4948	463	99
70°	4479	163	41
75°	3892	55	27
80°	2980	41	0
85°	1363	0	0

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 5955 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	92.7	5.7
10°-20°	249.0	15.4
20°-30°	336.8	20.8
30°-40°	346.0	21.4
40°-50°	286.6	17.7
50°-60°	184.0	11.4
60°-70°	88.9	5.5
70°-80°	30.1	1.9
80°-90°	3.9	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°	678.5	41.9
0°-40°	1024.5	63.3
0°-60°	1495.1	92.4
0°-90°	1618.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1618.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	998	998	998	998	998	
5°	986	994	983	977	982	94
15°	939	927	882	851	844	265
25°	850	808	724	659	637	391
35°	731	661	539	445	412	457
45°	596	498	349	241	204	459
55°	449	329	167	73	48	401
65°	296	163	28	8	6	293
75°	142	31	2	1	1	151
85°	17	0	0	0	0	27
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	998.2	998.2	998.2	998.2	998.2
2.5°	992.3	1000.2	993.3	992.3	994.3
5°	986.3	994.3	983.4	977.4	982.4
7.5°	979.4	983.4	964.6	954.7	956.7
10°	969.5	968.5	940.8	924.0	921.1
12.5°	954.7	949.7	913.1	889.4	884.4
15°	938.9	927.0	881.5	850.8	843.9
17.5°	920.1	901.3	846.9	807.3	797.4
20°	898.3	872.6	808.3	759.8	745.0
22.5°	874.6	841.9	767.7	710.3	690.5
25°	849.8	808.3	724.2	658.9	637.1
27.5°	822.1	773.6	680.6	606.4	579.7
30°	792.4	737.0	634.2	553.0	526.3
32.5°	761.8	700.4	587.7	499.6	467.0
35°	731.1	660.9	539.2	445.2	411.6
37.5°	698.5	621.3	491.7	393.7	357.1
40°	664.8	580.7	443.2	340.3	304.7
42.5°	630.2	539.2	394.7	289.9	253.3
45°	595.6	497.6	349.2	241.4	203.8
47.5°	560.0	455.1	301.7	193.9	161.3
50°	523.3	413.5	256.2	151.4	119.7
52.5°	486.7	371.0	209.7	109.8	81.1
55°	449.1	329.4	167.2	73.2	47.5
57.5°	411.6	286.9	127.6	40.6	17.8
60°	373.0	246.3	90.0	13.9	11.9
62.5°	335.4	202.8	56.4	10.9	8.9
65°	295.8	163.2	27.7	7.9	5.9
67.5°	257.2	125.6	11.9	4.9	3.0
70°	216.7	91.0	7.9	3.0	2.0
72.5°	179.1	58.4	4.9	2.0	1.0
75°	142.5	30.7	2.0	1.0	1.0
77.5°	106.8	12.9	1.0	1.0	1.0
80°	73.2	5.9	1.0	1.0	0.0
82.5°	43.5	2.0	1.0	1.0	0.0
85°	16.8	0.0	0.0	0.0	0.0
87.5°	1.0	0.0	0.0	0.0	0.0
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	17.86	19.24	18.22	19.55	19.87	2.73	4.11	3.09	4.43	4.74
	3H	19.41	20.63	19.79	20.96	21.33	2.65	3.88	3.03	4.21	4.57
	4H	19.93	21.07	20.33	21.42	21.81	2.58	3.73	2.99	4.08	4.46
	6H	20.27	21.32	20.68	21.69	22.08	2.51	3.57	2.93	3.94	4.33
	8H	20.35	21.35	20.78	21.74	22.14	2.47	3.47	2.90	3.86	4.27
	12H	20.37	21.32	20.80	21.70	22.13	2.43	3.39	2.87	3.77	4.20
4H	2H	17.66	18.81	18.06	19.16	19.54	3.59	4.73	3.99	5.09	5.47
	3H	19.27	20.21	19.69	20.61	21.01	3.54	4.47	3.95	4.88	5.28
	4H	19.80	20.63	20.23	21.05	21.49	3.46	4.30	3.90	4.71	5.16
	6H	20.17	20.89	20.63	21.34	21.80	3.40	4.12	3.86	4.56	5.03
	8H	20.27	20.94	20.74	21.39	21.86	3.35	4.02	3.81	4.46	4.93
	12H	20.31	20.90	20.79	21.38	21.85	3.30	3.90	3.79	4.38	4.85
8H	4H	19.67	20.34	20.14	20.79	21.26	4.48	5.15	4.95	5.60	6.07
	6H	20.02	20.57	20.53	21.07	21.55	4.40	4.95	4.90	5.44	5.92
	8H	20.12	20.61	20.64	21.13	21.62	4.35	4.84	4.87	5.35	5.85
	12H	20.16	20.60	20.68	21.09	21.66	4.31	4.74	4.82	5.24	5.81
12H	4H	19.63	20.22	20.11	20.70	21.18	4.56	5.15	5.05	5.64	6.11
	6H	19.96	20.46	20.48	20.97	21.46	4.46	4.96	4.98	5.47	5.96
	8H	20.08	20.51	20.59	21.01	21.58	4.43	4.87	4.94	5.36	5.93