

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: P1056508

Luminaire Tested: S125R3DR-H1090D930-X4F0-XX-UDD-F-B

Issue Date: 7/25/2025

**Test Information**

Test Method: LM-79-2024  
Report Number: P1056508  
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-H1090D930-X4F0-XX-UDD-F-B  
Description: DEFINE 5, BLACK 3-INCH REGRESSED DIRECT RECESSED HOUSING WITH FROSTED LENS  
HIGH PERFORMANCE LIGHT ENGINE  
Light Source: 3000K CCT, 90 CRI LEDS  
Ballast/Driver: -

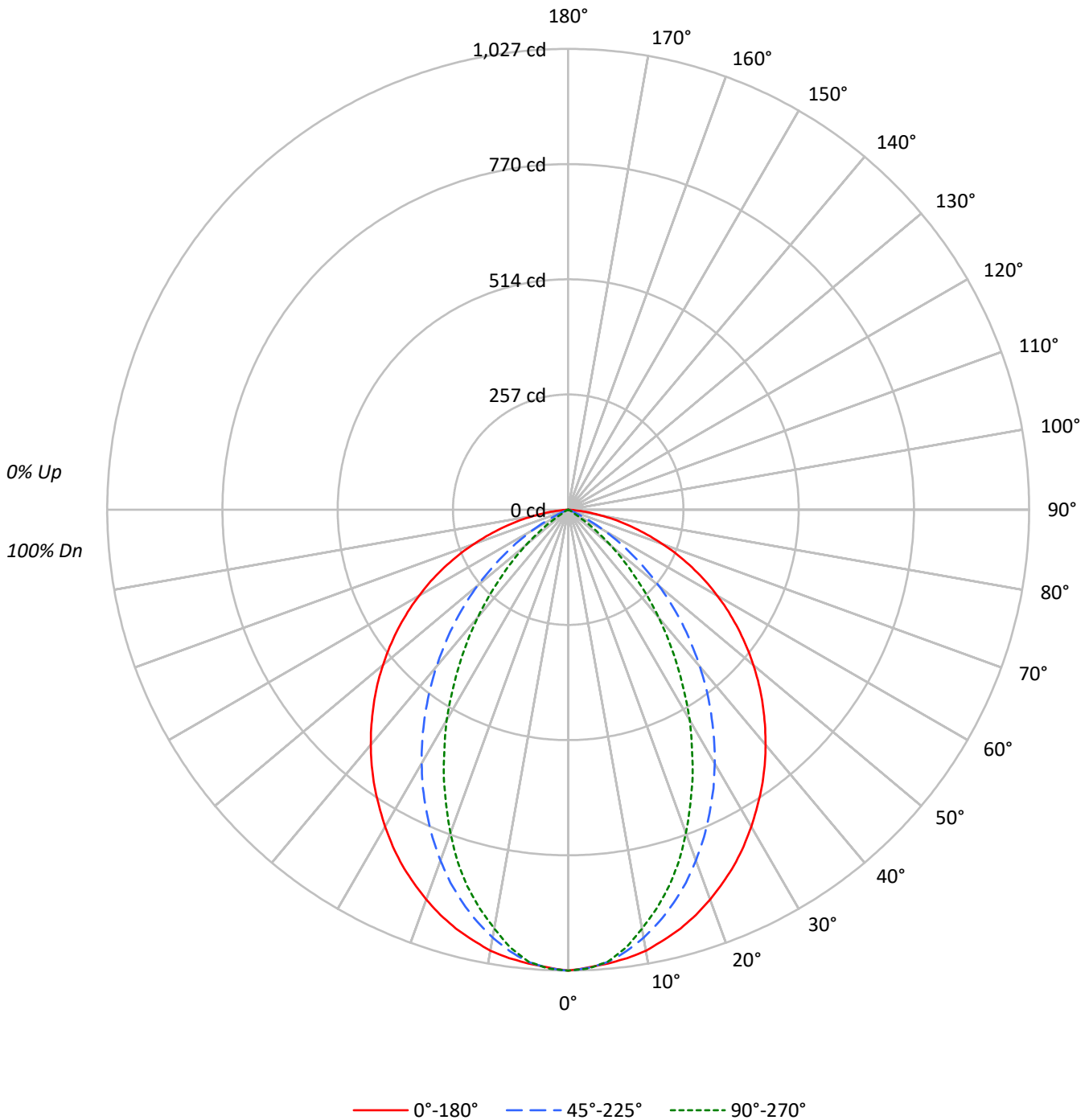
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 1665.2 lumens  
Efficiency: N/A  
Efficacy: 53.9 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 (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	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°	7262	7262	7262
5°	7203	7182	7175
10°	7163	6951	6804
15°	7072	6640	6356
20°	6955	6258	5768
25°	6822	5813	5115
30°	6658	5328	4422
35°	6493	4789	3656
40°	6314	4209	2894
45°	6128	3593	2096
50°	5923	2900	1355
55°	5698	2121	603
60°	5428	1311	172
65°	5092	477	102
70°	4609	167	41
75°	4004	55	27
80°	3066	41	0
85°	1403	0	0

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 6128 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	95.4	5.7
10°-20°	256.2	15.4
20°-30°	346.6	20.8
30°-40°	356.1	21.4
40°-50°	295.0	17.7
50°-60°	189.4	11.4
60°-70°	91.5	5.5
70°-80°	30.9	1.9
80°-90°	4.0	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°	698.3	41.9
0°-40°	1054.4	63.3
0°-60°	1538.8	92.4
0°-90°	1665.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1665.2	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1027	1027	1027	1027	1027	
5°	1015	1023	1012	1006	1011	96
15°	966	954	907	876	868	272
25°	875	832	745	678	656	402
35°	752	680	555	458	424	470
45°	613	512	359	248	210	473
55°	462	339	172	75	49	413
65°	304	168	28	8	6	301
75°	147	32	2	1	1	155
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°	1027.3	1027.3	1027.3	1027.3	1027.3
2.5°	1021.2	1029.4	1022.3	1021.2	1023.3
5°	1015.1	1023.3	1012.1	1006.0	1011.1
7.5°	1008.0	1012.1	992.7	982.5	984.6
10°	997.8	996.8	968.3	951.0	947.9
12.5°	982.5	977.5	939.8	915.3	910.3
15°	966.3	954.0	907.2	875.6	868.5
17.5°	946.9	927.6	871.6	830.8	820.7
20°	924.5	898.0	831.9	782.0	766.7
22.5°	900.1	866.5	790.1	731.1	710.7
25°	874.6	831.9	745.3	678.1	655.7
27.5°	846.1	796.2	700.5	624.1	596.7
30°	815.6	758.5	652.7	569.2	541.7
32.5°	784.0	720.9	604.8	514.2	480.6
35°	752.4	680.1	554.9	458.2	423.6
37.5°	718.8	639.4	506.0	405.2	367.6
40°	684.2	597.7	456.1	350.3	313.6
42.5°	648.6	554.9	406.3	298.3	260.7
45°	612.9	512.1	359.4	248.4	209.7
47.5°	576.3	468.4	310.5	199.6	166.0
50°	538.6	425.6	263.7	155.8	123.2
52.5°	500.9	381.8	215.9	113.0	83.5
55°	462.3	339.1	172.1	75.3	48.9
57.5°	423.6	295.3	131.3	41.7	18.3
60°	383.9	253.5	92.7	14.3	12.2
62.5°	345.2	208.7	58.0	11.2	9.2
65°	304.4	168.0	28.5	8.1	6.1
67.5°	264.7	129.3	12.2	5.1	3.1
70°	223.0	93.7	8.1	3.1	2.0
72.5°	184.3	60.1	5.1	2.0	1.0
75°	146.6	31.6	2.0	1.0	1.0
77.5°	110.0	13.2	1.0	1.0	1.0
80°	75.3	6.1	1.0	1.0	0.0
82.5°	44.8	2.0	1.0	1.0	0.0
85°	17.3	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	17.96	19.34	18.32	19.66	19.97	2.81	4.20	3.18	4.51	4.83
	3H	19.51	20.74	19.89	21.06	21.43	2.74	3.97	3.12	4.29	4.66
	4H	20.03	21.17	20.43	21.52	21.91	2.67	3.82	3.07	4.17	4.55
	6H	20.37	21.42	20.78	21.79	22.18	2.60	3.65	3.02	4.02	4.42
	8H	20.45	21.45	20.88	21.84	22.24	2.56	3.56	2.99	3.95	4.35
	12H	20.47	21.42	20.90	21.80	22.23	2.52	3.47	2.95	3.86	4.29
4H	2H	17.76	18.91	18.16	19.26	19.64	3.68	4.82	4.08	5.17	5.56
	3H	19.37	20.31	19.79	20.71	21.11	3.63	4.56	4.04	4.97	5.37
	4H	19.90	20.73	20.33	21.15	21.59	3.55	4.39	3.99	4.80	5.25
	6H	20.27	20.99	20.73	21.44	21.90	3.49	4.21	3.95	4.65	5.12
	8H	20.37	21.04	20.84	21.49	21.96	3.44	4.11	3.90	4.55	5.02
	12H	20.41	21.00	20.89	21.48	21.95	3.39	3.99	3.88	4.47	4.94
8H	4H	19.77	20.44	20.24	20.89	21.36	4.58	5.25	5.04	5.69	6.16
	6H	20.13	20.67	20.63	21.17	21.65	4.49	5.04	4.99	5.54	6.02
	8H	20.22	20.71	20.74	21.23	21.72	4.44	4.93	4.96	5.45	5.94
	12H	20.26	20.70	20.78	21.19	21.76	4.40	4.83	4.91	5.33	5.90
12H	4H	19.73	20.32	20.21	20.80	21.28	4.65	5.25	5.14	5.73	6.20
	6H	20.06	20.56	20.58	21.07	21.56	4.55	5.05	5.08	5.56	6.05
	8H	20.18	20.61	20.69	21.11	21.68	4.52	4.96	5.04	5.45	6.02