

Cooper Lighting Solutions Photometric Lab  
1121 Highway 74 South  
Peachtree City, GA 30269



Scaled data based on original data using  
LM-79-2019 Approved Method: Electrical and Photometric Measurements of Solid-  
State Lighting Products

Test Report Prepared for  
Cooper Lighting Solutions

Brand: NEO-RAY

Report Number: P1056511

Luminaire Tested: S125R3DR-H1090D935-X4F0-XX-UDD-FLL-B

Issue Date: 7/25/2025

**Test Information**

Test Method: LM-79-2019  
Report Number: P1056511  
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-H1090D935-X4F0-XX-UDD-FLL-B  
Description: DEFINE 5, BLACK 3-INCH REGRESSED DIRECT RECESSED HOUSING WITH FROSTED LENS  
HIGH PERFORMANCE LIGHT ENGINE  
Light Source: 3500K CCT, 90 CRI LEDS  
Ballast/Driver: -

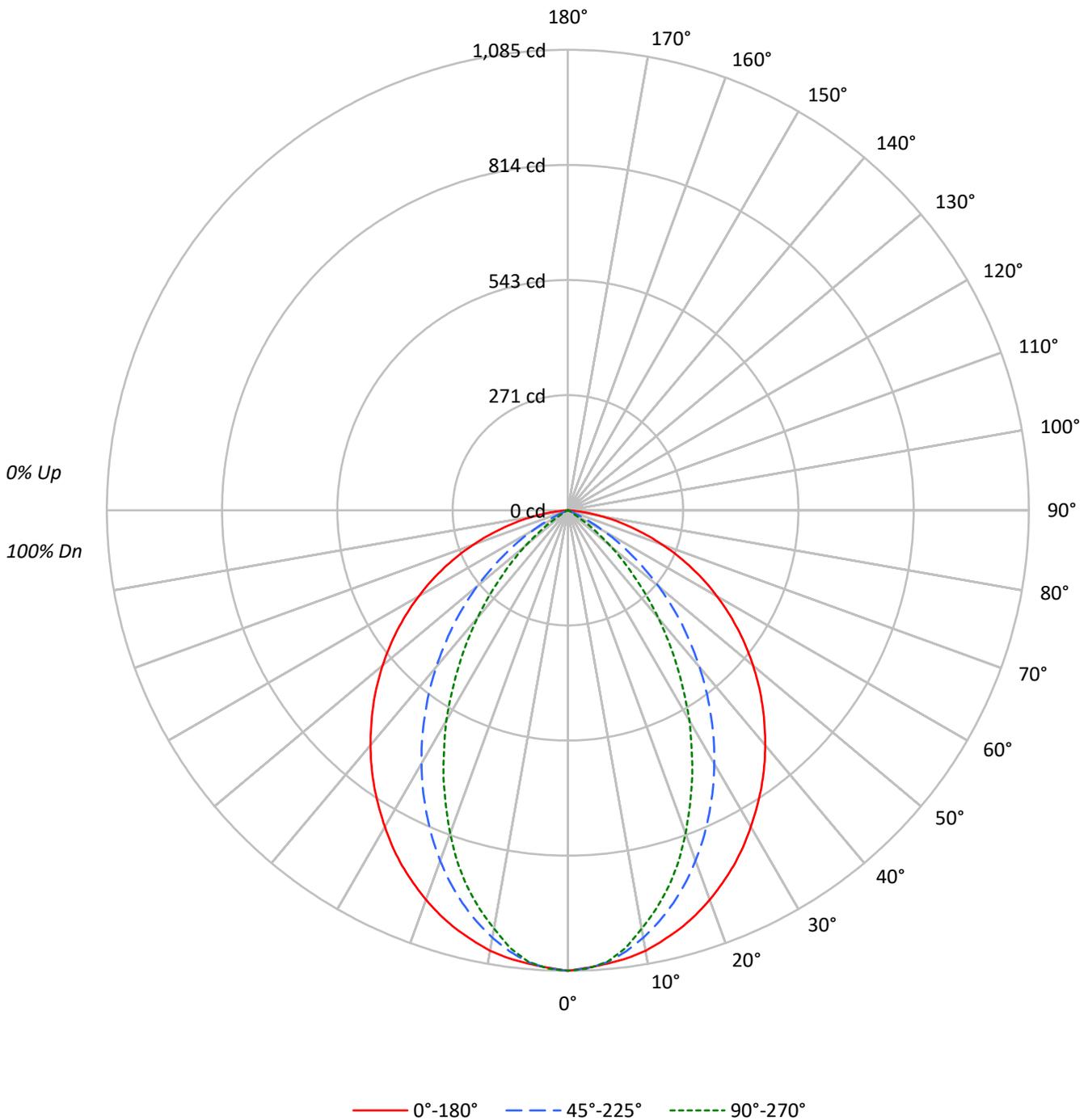
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 1758.6 lumens  
Efficiency: N/A  
Efficacy: 56.9 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 (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

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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°	7670	7670	7670
5°	7607	7585	7577
10°	7565	7341	7186
15°	7468	7012	6713
20°	7345	6609	6091
25°	7204	6139	5402
30°	7031	5626	4669
35°	6857	5057	3860
40°	6668	4445	3056
45°	6471	3795	2214
50°	6256	3063	1431
55°	6017	2239	636
60°	5732	1383	182
65°	5378	503	109
70°	4868	178	45
75°	4228	60	30
80°	3241	45	0
85°	1484	0	0

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 6471 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	100.8	5.7
10°-20°	270.6	15.4
20°-30°	366.1	20.8
30°-40°	376.0	21.4
40°-50°	311.6	17.7
50°-60°	200.0	11.4
60°-70°	96.6	5.5
70°-80°	32.7	1.9
80°-90°	4.2	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°	737.4	41.9
0°-40°	1113.5	63.3
0°-60°	1625.0	92.4
0°-90°	1758.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1758.6	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1085	1085	1085	1085	1085	
5°	1072	1081	1069	1062	1068	102
15°	1020	1008	958	925	917	288
25°	924	878	787	716	692	425
35°	795	718	586	484	447	497
45°	647	541	380	262	222	499
55°	488	358	182	80	52	436
65°	322	177	30	9	6	318
75°	155	33	2	1	1	164
85°	18	0	0	0	0	29
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1084.9	1084.9	1084.9	1084.9	1084.9
2.5°	1078.5	1087.1	1079.6	1078.5	1080.6
5°	1072.0	1080.6	1068.8	1062.4	1067.7
7.5°	1064.5	1068.8	1048.4	1037.6	1039.8
10°	1053.8	1052.7	1022.6	1004.3	1001.1
12.5°	1037.6	1032.2	992.5	966.7	961.3
15°	1020.4	1007.5	958.1	924.7	917.2
17.5°	1000.0	979.6	920.4	877.4	866.7
20°	976.3	948.4	878.5	825.8	809.7
22.5°	950.5	915.0	834.4	772.0	750.5
25°	923.6	878.5	787.1	716.1	692.5
27.5°	893.5	840.8	739.8	659.1	630.1
30°	861.3	801.1	689.2	601.1	572.0
32.5°	827.9	761.3	638.7	543.0	507.5
35°	794.6	718.3	586.0	483.9	447.3
37.5°	759.1	675.3	534.4	428.0	388.2
40°	722.6	631.2	481.7	369.9	331.2
42.5°	684.9	586.0	429.0	315.0	275.3
45°	647.3	540.9	379.6	262.4	221.5
47.5°	608.6	494.6	328.0	210.8	175.3
50°	568.8	449.5	278.5	164.5	130.1
52.5°	529.0	403.2	228.0	119.4	88.2
55°	488.2	358.1	181.7	79.6	51.6
57.5°	447.3	311.8	138.7	44.1	19.4
60°	405.4	267.7	97.8	15.1	12.9
62.5°	364.5	220.4	61.3	11.8	9.7
65°	321.5	177.4	30.1	8.6	6.5
67.5°	279.6	136.6	12.9	5.4	3.2
70°	235.5	98.9	8.6	3.2	2.2
72.5°	194.6	63.4	5.4	2.2	1.1
75°	154.8	33.3	2.2	1.1	1.1
77.5°	116.1	14.0	1.1	1.1	1.1
80°	79.6	6.5	1.1	1.1	0.0
82.5°	47.3	2.2	1.1	1.1	0.0
85°	18.3	0.0	0.0	0.0	0.0
87.5°	1.1	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	18.15	19.53	18.51	19.84	20.16	3.02	4.40	3.38	4.71	5.03
	3H	19.70	20.92	20.08	21.25	21.62	2.94	4.17	3.32	4.49	4.86
	4H	20.22	21.36	20.62	21.71	22.10	2.87	4.02	3.27	4.37	4.75
	6H	20.56	21.61	20.97	21.98	22.37	2.80	3.85	3.22	4.22	4.62
	8H	20.64	21.64	21.07	22.03	22.43	2.76	3.76	3.19	4.15	4.55
	12H	20.66	21.61	21.09	21.99	22.42	2.72	3.67	3.15	4.06	4.49
4H	2H	17.95	19.09	18.35	19.44	19.83	3.88	5.02	4.28	5.37	5.75
	3H	19.56	20.50	19.98	20.90	21.30	3.83	4.76	4.24	5.16	5.57
	4H	20.09	20.92	20.52	21.34	21.78	3.75	4.58	4.18	5.00	5.44
	6H	20.46	21.18	20.92	21.63	22.09	3.69	4.40	4.15	4.85	5.31
	8H	20.56	21.23	21.03	21.68	22.15	3.63	4.31	4.10	4.75	5.22
	12H	20.60	21.19	21.08	21.67	22.14	3.59	4.19	4.08	4.67	5.14
8H	4H	19.96	20.63	20.43	21.08	21.55	4.77	5.44	5.24	5.89	6.36
	6H	20.31	20.86	20.82	21.36	21.84	4.69	5.24	5.19	5.73	6.21
	8H	20.41	20.90	20.93	21.42	21.91	4.64	5.13	5.16	5.64	6.13
	12H	20.45	20.89	20.97	21.38	21.95	4.60	5.03	5.11	5.52	6.09
12H	4H	19.92	20.51	20.40	20.99	21.46	4.85	5.44	5.33	5.92	6.40
	6H	20.25	20.75	20.77	21.26	21.75	4.75	5.24	5.27	5.76	6.25
	8H	20.37	20.80	20.88	21.30	21.87	4.72	5.15	5.23	5.65	6.22