

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: P1056513

Luminaire Tested: S125R3DR-H1090D935-X4F0-XX-UDD-F-W

Issue Date: 7/25/2025

**Test Information**

Test Method: LM-79-2024  
Report Number: P1056513  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2503-402-10)  
Test Lab: INNOVATION CENTER  
Issue Date: 7/25/2025  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: NEO-RAY  
Catalog Number: S125R3DR-H1090D935-X4F0-XX-UDD-F-W  
Description: DEFINE 5, WHITE 3-INCH REGRESSED DIRECT RECESSED HOUSING WITH FROSTED LENS  
HIGH PERFORMANCE LIGHT ENGINE  
Light Source: 3500K CCT, 90 CRI LEDS  
Ballast/Driver: -

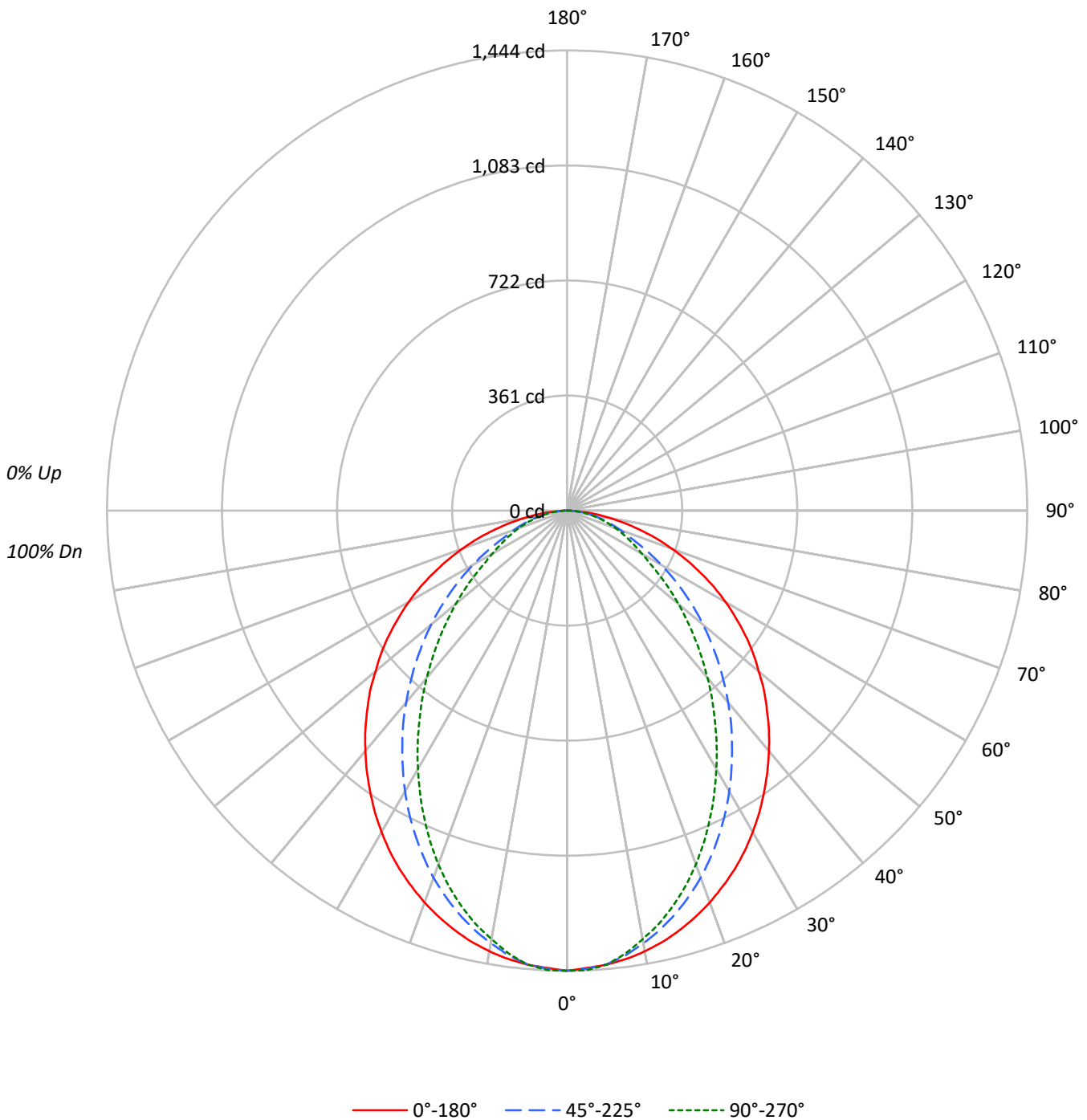
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 3060.6 lumens  
Efficiency: N/A  
Efficacy: 99.0 lumens/watt  
Spacing Criteria (0/90/45): 1.2 / 1.01 / 1.17  
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	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					100			
1	110	105	101	98	107	103	100	96	99	96	93	95	93	90	91	90	88	86					86			
2	101	93	87	81	98	91	85	80	88	83	79	84	80	77	81	78	75	73					73			
3	92	83	75	69	90	81	74	68	78	72	67	75	70	66	73	69	65	63					63			
4	85	74	66	59	83	73	65	59	70	63	58	68	62	57	66	61	57	55					55			
5	79	67	58	52	77	66	58	52	63	56	51	62	55	51	60	54	50	48					48			
6	73	60	52	46	71	59	51	46	58	51	45	56	50	45	55	49	45	43					43			
7	68	55	47	41	66	54	46	41	53	46	41	51	45	40	50	44	40	38					38			
8	63	51	42	37	62	50	42	37	49	42	37	47	41	36	46	40	36	34					34			
9	59	47	39	33	58	46	39	33	45	38	33	44	38	33	43	37	33	31					31			
10	56	43	36	31	55	43	35	31	42	35	30	41	35	30	40	34	30	28					28			

**AVERAGE LUMINANCE (cd/sqm):**

	0°	45°	90°
0°	10209	10209	10209
5°	10148	10141	10148
10°	10081	9895	9803
15°	9978	9593	9397
20°	9845	9222	8890
25°	9696	8781	8287
30°	9506	8303	7645
35°	9298	7785	6978
40°	9089	7253	6321
45°	8869	6697	5666
50°	8632	6126	5014
55°	8416	5499	4361
60°	8118	4834	3832
65°	7716	4102	3561
70°	7245	3667	3334
75°	6550	3379	3144
80°	5691	3066	2931
85°	4445	2701	2701

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 8869 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	135.1	4.4
10°-20°	371.0	12.1
20°-30°	524.0	17.1
30°-40°	576.9	18.8
40°-50°	538.1	17.6
50°-60°	429.6	14.0
60°-70°	289.1	9.4
70°-80°	154.0	5.0
80°-90°	42.8	1.4
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°	1030.2	33.7
0°-40°	1607.1	52.5
0°-60°	2574.8	84.1
0°-90°	3060.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3060.6	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1444	1444	1444	1444	1444	
5°	1430	1442	1429	1425	1430	136
15°	1363	1356	1311	1288	1284	384
25°	1243	1205	1126	1076	1062	572
35°	1077	1014	902	831	809	674
45°	887	803	670	588	567	685
55°	683	580	446	375	354	610
65°	461	360	245	217	213	458
75°	240	159	124	116	115	255
85°	55	38	33	34	33	65
90°	0	0	0	0	0	

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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1444.1	1444.1	1444.1	1444.1	1444.1
2.5°	1436.5	1448.4	1438.7	1440.8	1443.0
5°	1430.1	1441.9	1429.0	1424.7	1430.1
7.5°	1419.3	1429.0	1407.5	1397.8	1402.1
10°	1404.3	1410.7	1378.5	1365.6	1365.6
12.5°	1386.0	1386.0	1347.3	1329.0	1329.0
15°	1363.4	1355.9	1310.7	1288.2	1283.9
17.5°	1337.6	1323.6	1269.9	1240.8	1235.5
20°	1308.6	1286.0	1225.8	1188.2	1181.7
22.5°	1276.3	1247.3	1177.4	1131.2	1123.6
25°	1243.0	1205.4	1125.8	1076.3	1062.4
27.5°	1205.4	1160.2	1073.1	1017.2	1000.0
30°	1164.5	1112.9	1017.2	954.8	936.5
32.5°	1122.6	1064.5	960.2	893.5	873.1
35°	1077.4	1014.0	902.1	831.2	808.6
37.5°	1032.2	963.4	845.1	771.0	747.3
40°	984.9	909.7	786.0	709.7	684.9
42.5°	937.6	857.0	727.9	650.5	624.7
45°	887.1	803.2	669.9	588.2	566.7
47.5°	838.7	748.4	612.9	533.3	509.7
50°	784.9	691.4	557.0	477.4	455.9
52.5°	735.5	635.5	501.1	426.9	404.3
55°	682.8	579.6	446.2	375.3	353.8
57.5°	627.9	523.6	393.5	326.9	306.4
60°	574.2	467.7	341.9	280.6	271.0
62.5°	519.3	415.0	293.5	246.2	239.8
65°	461.3	360.2	245.2	217.2	212.9
67.5°	406.4	307.5	206.4	190.3	186.0
70°	350.5	254.8	177.4	163.4	161.3
72.5°	295.7	204.3	149.5	139.8	137.6
75°	239.8	159.1	123.7	116.1	115.1
77.5°	188.2	119.4	97.8	94.6	92.5
80°	139.8	89.2	75.3	73.1	72.0
82.5°	95.7	61.3	53.8	53.8	51.6
85°	54.8	37.6	33.3	34.4	33.3
87.5°	20.4	16.1	15.1	16.1	16.1
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	19.36	20.90	19.72	21.21	21.53	15.74	17.28	16.11	17.60	17.91
	3H	21.14	22.53	21.52	22.86	23.22	17.22	18.60	17.60	18.93	19.29
	4H	21.80	23.10	22.20	23.45	23.82	17.81	19.11	18.21	19.46	19.83
	6H	22.27	23.48	22.69	23.84	24.23	18.27	19.47	18.68	19.84	20.23
	8H	22.43	23.57	22.85	23.96	24.36	18.43	19.58	18.86	19.96	20.37
	12H	22.52	23.62	22.95	24.00	24.43	18.55	19.64	18.98	20.02	20.45
4H	2H	19.49	20.79	19.89	21.14	21.52	16.42	17.72	16.82	18.07	18.44
	3H	21.46	22.54	21.87	22.94	23.35	18.10	19.18	18.51	19.58	19.98
	4H	22.21	23.18	22.64	23.60	24.04	18.80	19.77	19.23	20.19	20.63
	6H	22.80	23.65	23.26	24.09	24.55	19.39	20.23	19.84	20.68	21.13
	8H	23.01	23.80	23.47	24.25	24.71	19.59	20.39	20.06	20.83	21.30
	12H	23.16	23.87	23.64	24.34	24.82	19.75	20.46	20.24	20.94	21.41
8H	4H	22.27	23.07	22.74	23.51	23.98	19.16	19.96	19.63	20.40	20.87
	6H	22.93	23.59	23.43	24.08	24.56	19.87	20.52	20.36	21.01	21.49
	8H	23.19	23.78	23.70	24.28	24.77	20.15	20.74	20.66	21.25	21.74
	12H	23.39	23.92	23.90	24.41	24.97	20.39	20.91	20.90	21.40	21.97
12H	4H	22.27	22.98	22.75	23.45	23.92	19.21	19.92	19.69	20.40	20.87
	6H	22.93	23.52	23.44	24.03	24.51	19.94	20.53	20.45	21.04	21.52
	8H	23.22	23.74	23.73	24.23	24.80	20.28	20.80	20.79	21.29	21.86