

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: P1056359

Luminaire Tested: S125R3DR-S1090D830-X4F0-XX-UDD-F-S

Issue Date: 7/25/2025

**Test Information**

Test Method: LM-79-2024  
Report Number: P1056359  
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-S1090D830-X4F0-XX-UDD-F-S  
Description: DEFINE 5, SILVER 3-INCH REGRESSED DIRECT RECESSED HOUSING WITH FROSTED LENS  
CORE LIGHT ENGINE  
Light Source: 3000K CCT, 80 CRI LEDS  
Ballast/Driver: -

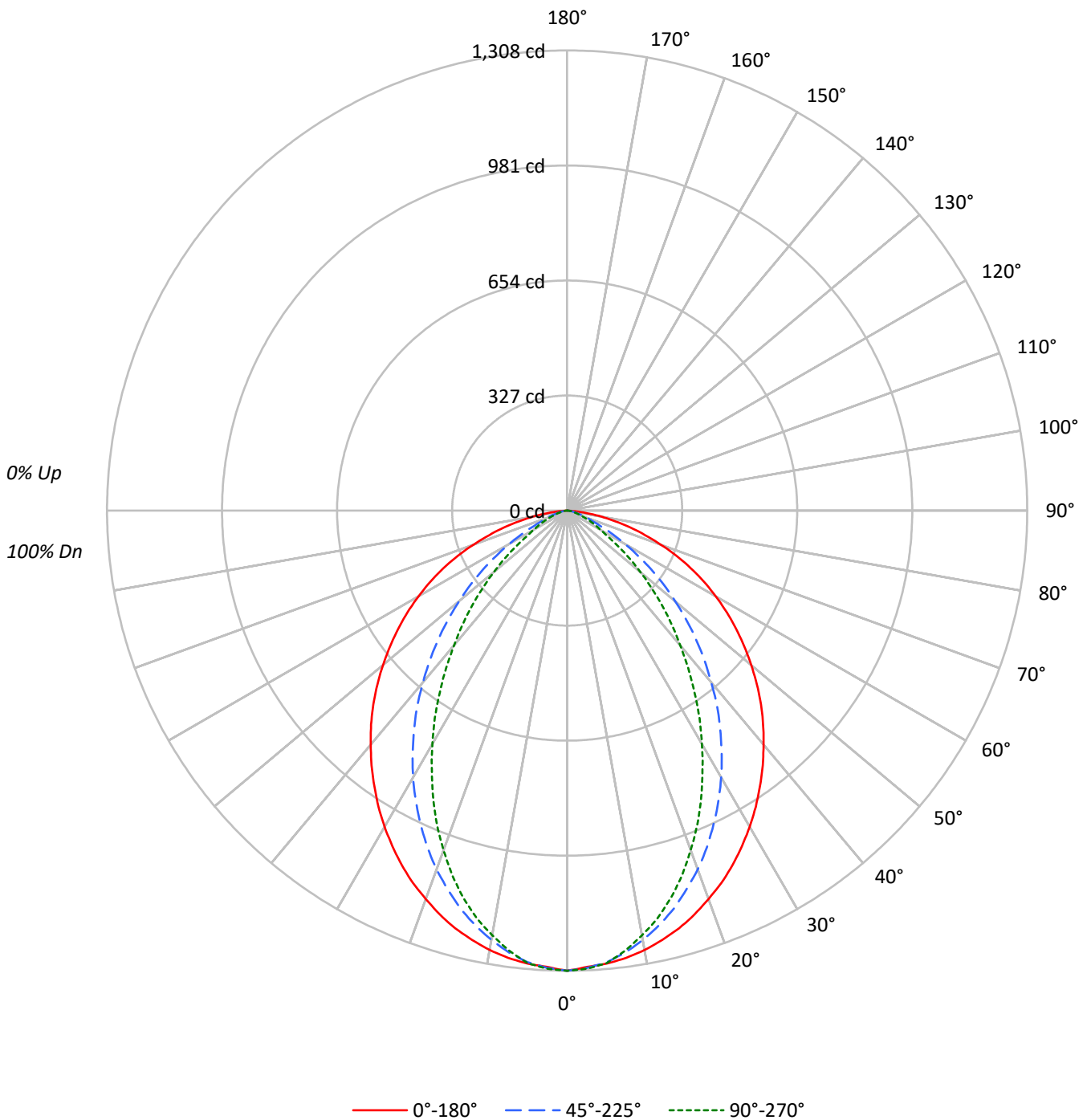
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 2364.4 lumens  
Efficiency: N/A  
Efficacy: 68.1 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): 34.7  
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	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°	9247	9247	9247
5°	9171	9145	9163
10°	9104	8895	8799
15°	8998	8572	8342
20°	8839	8165	7727
25°	8673	7681	7029
30°	8473	7148	6259
35°	8248	6543	5446
40°	8015	5879	4605
45°	7786	5183	3814
50°	7513	4409	2997
55°	7225	3583	2179
60°	6901	2672	1558
65°	6484	1763	1216
70°	5858	1228	852
75°	5094	795	661
80°	3994	590	541
85°	2060	495	389

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 7786 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	121.8	5.2
10°-20°	331.3	14.0
20°-30°	458.0	19.4
30°-40°	485.3	20.5
40°-50°	423.6	17.9
50°-60°	301.3	12.7
60°-70°	167.5	7.1
70°-80°	64.4	2.7
80°-90°	11.1	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°	911.1	38.5
0°-40°	1396.4	59.1
0°-60°	2121.3	89.7
0°-90°	2364.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2364.4	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1308	1308	1308	1308	1308	
5°	1292	1302	1289	1285	1291	123
15°	1229	1218	1171	1146	1140	346
25°	1112	1074	985	924	901	512
35°	956	890	758	666	631	598
45°	779	686	518	414	382	600
55°	586	470	291	201	177	524
65°	388	254	105	78	73	383
75°	186	73	29	24	24	198
85°	25	7	6	5	5	38
90°	0	0	0	0	0	

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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1308.1	1308.1	1308.1	1308.1	1308.1
2.5°	1298.4	1311.8	1300.9	1302.1	1303.3
5°	1292.4	1302.1	1288.7	1285.1	1291.2
7.5°	1282.7	1290.0	1266.9	1258.5	1262.1
10°	1268.2	1270.6	1239.1	1227.0	1225.8
12.5°	1250.0	1246.4	1207.6	1188.2	1187.0
15°	1229.4	1218.5	1171.3	1145.8	1139.8
17.5°	1204.0	1187.0	1128.9	1096.2	1086.5
20°	1174.9	1151.9	1085.3	1042.9	1027.1
22.5°	1145.8	1114.3	1036.8	983.5	966.6
25°	1111.9	1074.4	984.7	924.2	901.2
27.5°	1075.6	1030.8	931.4	861.2	833.3
30°	1038.0	985.9	875.7	797.0	766.7
32.5°	998.1	938.7	817.6	731.6	700.1
35°	955.7	890.3	758.2	666.2	631.0
37.5°	913.3	840.6	700.1	602.0	565.6
40°	868.5	789.7	637.1	536.6	499.0
42.5°	824.8	737.6	577.8	474.8	440.9
45°	778.8	685.6	518.4	414.2	381.5
47.5°	731.6	631.0	459.1	357.3	324.6
50°	683.1	577.8	400.9	301.6	272.5
52.5°	634.7	524.5	346.4	248.3	222.9
55°	586.2	470.0	290.7	201.1	176.8
57.5°	537.8	416.7	238.6	157.5	135.7
60°	488.1	362.2	189.0	116.3	110.2
62.5°	438.5	308.9	146.6	95.7	90.8
65°	387.6	254.4	105.4	77.5	72.7
67.5°	336.7	204.7	76.3	59.4	55.7
70°	283.4	156.2	59.4	44.8	41.2
72.5°	232.6	112.6	42.4	32.7	31.5
75°	186.5	72.7	29.1	24.2	24.2
77.5°	140.5	43.6	20.6	18.2	18.2
80°	98.1	25.4	14.5	13.3	13.3
82.5°	59.4	13.3	9.7	8.5	8.5
85°	25.4	7.3	6.1	4.8	4.8
87.5°	4.8	2.4	2.4	2.4	2.4
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	18.89	20.34	19.26	20.65	20.96	11.53	12.97	11.89	13.29	13.60
	3H	20.45	21.74	20.83	22.06	22.43	12.09	13.38	12.47	13.71	14.07
	4H	20.97	22.17	21.37	22.52	22.90	12.22	13.42	12.62	13.77	14.15
	6H	21.31	22.41	21.72	22.78	23.18	12.28	13.39	12.70	13.76	14.15
	8H	21.39	22.44	21.82	22.83	23.23	12.29	13.34	12.71	13.73	14.13
	12H	21.41	22.42	21.85	22.80	23.23	12.28	13.28	12.71	13.66	14.09
4H	2H	18.79	19.99	19.19	20.34	20.72	12.09	13.30	12.50	13.65	14.03
	3H	20.45	21.44	20.86	21.84	22.24	12.77	13.75	13.18	14.16	14.56
	4H	21.00	21.89	21.44	22.30	22.74	12.92	13.81	13.36	14.22	14.67
	6H	21.39	22.16	21.85	22.60	23.07	13.04	13.80	13.50	14.24	14.71
	8H	21.50	22.21	21.97	22.66	23.13	13.05	13.76	13.51	14.21	14.67
	12H	21.55	22.18	22.03	22.66	23.13	13.05	13.68	13.53	14.16	14.64
8H	4H	20.91	21.62	21.37	22.06	22.53	13.19	13.91	13.66	14.35	14.82
	6H	21.29	21.88	21.79	22.37	22.85	13.33	13.91	13.83	14.41	14.88
	8H	21.40	21.92	21.92	22.44	22.93	13.35	13.88	13.87	14.39	14.88
	12H	21.46	21.93	21.98	22.42	22.99	13.38	13.84	13.89	14.33	14.90
12H	4H	20.87	21.50	21.35	21.98	22.46	13.21	13.84	13.69	14.32	14.79
	6H	21.24	21.76	21.76	22.28	22.77	13.34	13.86	13.86	14.38	14.87
	8H	21.37	21.83	21.88	22.32	22.89	13.40	13.86	13.91	14.35	14.92