

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: P1056360

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

Issue Date: 7/25/2025

**Test Information**

Test Method: LM-79-2024  
Report Number: P1056360  
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-S1090D830-X4F0-XX-UDD-F-W  
Description: DEFINE 5, WHITE 3-INCH REGRESSED DIRECT RECESSED HOUSING WITH FROSTED LENS  
CORE LIGHT ENGINE  
Light Source: 3000K CCT, 80 CRI LEDS  
Ballast/Driver: -

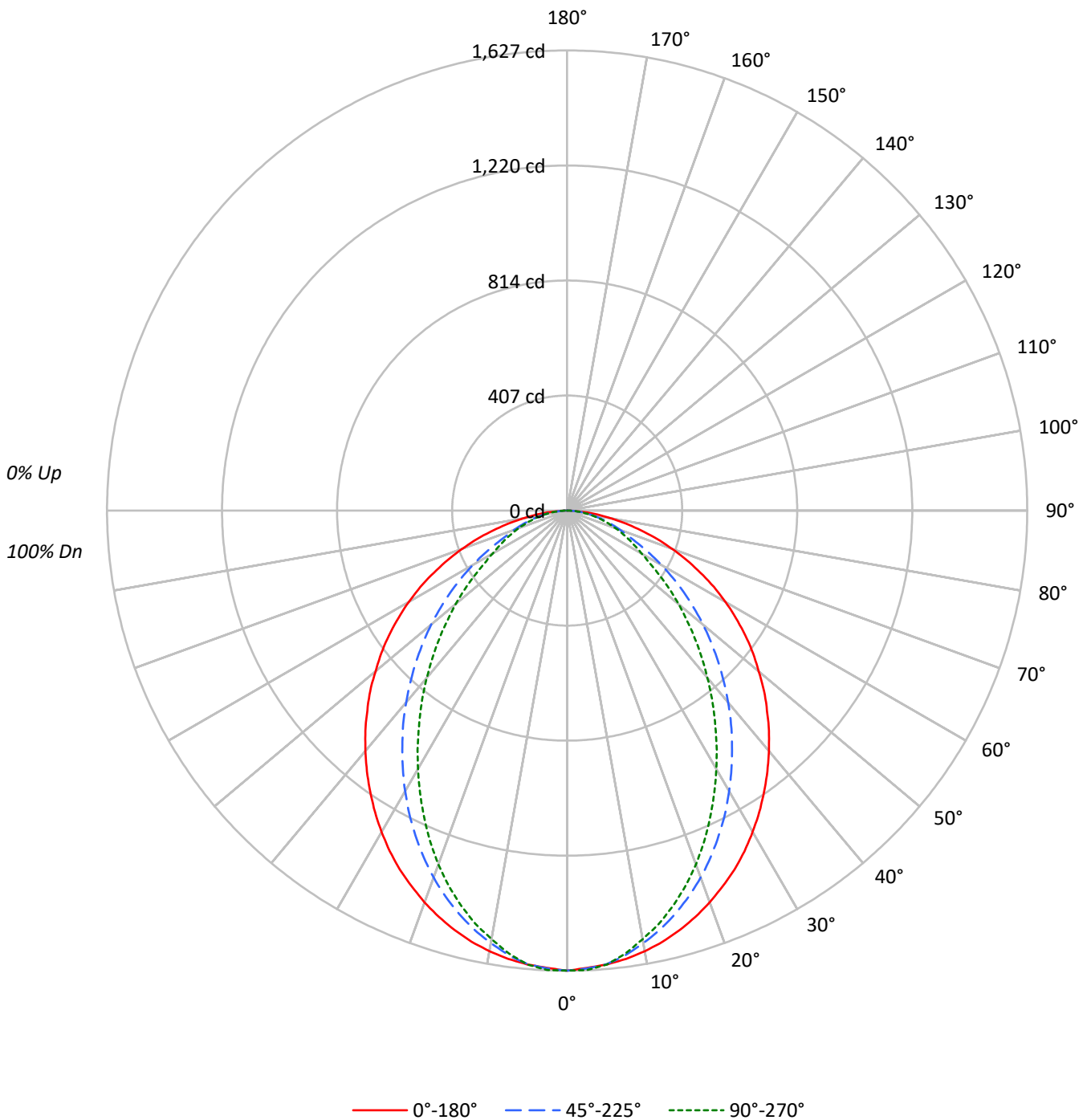
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 3447.7 lumens  
Efficiency: N/A  
Efficacy: 99.4 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): 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	110	105	101	98	107	103	100	96		99	96	93		95	93	90		91	90	88	86	
2	101	93	87	81	98	91	85	80		88	83	79		84	80	77		81	78	75	73	
3	92	83	75	69	90	81	74	68		78	72	67		75	70	66		73	69	65	63	
4	85	74	66	59	83	73	65	59		70	63	58		68	62	57		66	61	57	55	
5	79	67	58	52	77	66	58	52		63	56	51		62	55	51		60	54	50	48	
6	73	60	52	46	71	59	51	46		58	51	45		56	50	45		55	49	45	43	
7	68	55	47	41	66	54	46	41		53	46	41		51	45	40		50	44	40	38	
8	63	51	42	37	62	50	42	37		49	42	37		47	41	36		46	40	36	34	
9	59	47	39	33	58	46	39	33		45	38	33		44	38	33		43	37	33	31	
10	56	43	36	31	55	43	35	30		42	35	30		41	35	30		40	34	30	28	

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

	0°	45°	90°
0°	11500	11500	11500
5°	11431	11423	11431
10°	11356	11147	11043
15°	11240	10806	10584
20°	11090	10388	10014
25°	10922	9892	9334
30°	10708	9353	8612
35°	10474	8770	7860
40°	10239	8171	7121
45°	9991	7544	6381
50°	9724	6900	5649
55°	9479	6196	4912
60°	9145	5446	4315
65°	8692	4620	4011
70°	8162	4132	3756
75°	7377	3805	3540
80°	6412	3452	3306
85°	5013	3042	3042

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 9991 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	152.2	4.4
10°-20°	417.9	12.1
20°-30°	590.3	17.1
30°-40°	649.9	18.8
40°-50°	606.2	17.6
50°-60°	483.9	14.0
60°-70°	325.7	9.4
70°-80°	173.5	5.0
80°-90°	48.2	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°	1160.4	33.7
0°-40°	1810.3	52.5
0°-60°	2900.4	84.1
0°-90°	3447.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3447.7	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1627	1627	1627	1627	1627	
5°	1611	1624	1610	1605	1611	153
15°	1536	1527	1476	1451	1446	433
25°	1400	1358	1268	1212	1197	645
35°	1214	1142	1016	936	911	759
45°	999	905	755	662	638	772
55°	769	653	503	423	398	687
65°	520	406	276	245	240	515
75°	270	179	139	131	130	288
85°	62	42	38	39	38	74
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1626.7	1626.7	1626.7	1626.7	1626.7
2.5°	1618.2	1631.5	1620.6	1623.0	1625.5
5°	1610.9	1624.3	1609.7	1604.9	1610.9
7.5°	1598.8	1609.7	1585.5	1574.6	1579.4
10°	1581.9	1589.1	1552.8	1538.3	1538.3
12.5°	1561.3	1561.3	1517.7	1497.1	1497.1
15°	1535.8	1527.4	1476.5	1451.1	1446.2
17.5°	1506.8	1491.0	1430.5	1397.8	1391.7
20°	1474.1	1448.6	1380.8	1338.4	1331.1
22.5°	1437.7	1405.0	1326.3	1274.2	1265.7
25°	1400.2	1357.8	1268.2	1212.4	1196.7
27.5°	1357.8	1306.9	1208.8	1145.8	1126.4
30°	1311.8	1253.6	1145.8	1075.6	1055.0
32.5°	1264.5	1199.1	1081.6	1006.5	983.5
35°	1213.7	1142.2	1016.2	936.3	910.8
37.5°	1162.8	1085.3	952.0	868.5	841.8
40°	1109.5	1024.7	885.4	799.4	771.6
42.5°	1056.2	965.3	820.0	732.8	703.7
45°	999.3	904.8	754.6	662.5	638.3
47.5°	944.8	843.0	690.4	600.8	574.1
50°	884.2	778.8	627.4	537.8	513.6
52.5°	828.5	715.8	564.4	480.9	455.4
55°	769.1	652.9	502.7	422.7	398.5
57.5°	707.4	589.9	443.3	368.2	345.2
60°	646.8	526.9	385.2	316.1	305.2
62.5°	585.0	467.5	330.7	277.4	270.1
65°	519.6	405.8	276.2	244.7	239.8
67.5°	457.8	346.4	232.6	214.4	209.5
70°	394.9	287.1	199.9	184.1	181.7
72.5°	333.1	230.1	168.4	157.5	155.0
75°	270.1	179.3	139.3	130.8	129.6
77.5°	212.0	134.4	110.2	106.6	104.2
80°	157.5	100.5	84.8	82.4	81.2
82.5°	107.8	69.0	60.6	60.6	58.1
85°	61.8	42.4	37.5	38.8	37.5
87.5°	23.0	18.2	17.0	18.2	18.2
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	19.77	21.31	20.14	21.63	21.94	16.16	17.70	16.52	18.01	18.32
	3H	21.56	22.94	21.94	23.27	23.63	17.63	19.02	18.01	19.34	19.70
	4H	22.21	23.51	22.61	23.86	24.24	18.22	19.52	18.62	19.87	20.25
	6H	22.69	23.89	23.10	24.26	24.65	18.68	19.89	19.10	20.25	20.64
	8H	22.84	23.99	23.27	24.38	24.78	18.85	19.99	19.27	20.38	20.78
	12H	22.94	24.03	23.37	24.42	24.85	18.96	20.06	19.39	20.44	20.87
4H	2H	19.91	21.21	20.31	21.56	21.93	16.83	18.13	17.23	18.48	18.86
	3H	21.88	22.96	22.29	23.36	23.76	18.51	19.59	18.92	19.99	20.39
	4H	22.62	23.60	23.06	24.01	24.45	19.21	20.19	19.65	20.60	21.04
	6H	23.22	24.07	23.68	24.51	24.97	19.80	20.65	20.26	21.09	21.55
	8H	23.42	24.22	23.89	24.66	25.13	20.01	20.80	20.47	21.24	21.71
	12H	23.57	24.28	24.05	24.76	25.23	20.17	20.88	20.65	21.36	21.83
8H	4H	22.69	23.48	23.15	23.92	24.39	19.58	20.37	20.04	20.81	21.28
	6H	23.35	24.00	23.84	24.49	24.97	20.28	20.94	20.78	21.43	21.90
	8H	23.60	24.19	24.11	24.70	25.19	20.56	21.15	21.08	21.66	22.15
	12H	23.81	24.33	24.32	24.82	25.39	20.81	21.33	21.31	21.82	22.38
12H	4H	22.68	23.39	23.16	23.87	24.34	19.62	20.33	20.11	20.81	21.28
	6H	23.34	23.93	23.85	24.44	24.93	20.35	20.94	20.86	21.45	21.94
	8H	23.64	24.16	24.14	24.65	25.21	20.69	21.22	21.20	21.71	22.27