

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: P1056358

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

Issue Date: 7/25/2025

**Test Information**

Test Method: LM-79-2024  
Report Number: P1056358  
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-S1090D830-X4F0-XX-UDD-F-B  
Description: DEFINE 5, BLACK 3-INCH REGRESSED DIRECT RECESSED HOUSING WITH FROSTED LENS  
CORE LIGHT ENGINE  
Light Source: 3000K CCT, 80 CRI LEDS  
Ballast/Driver: -

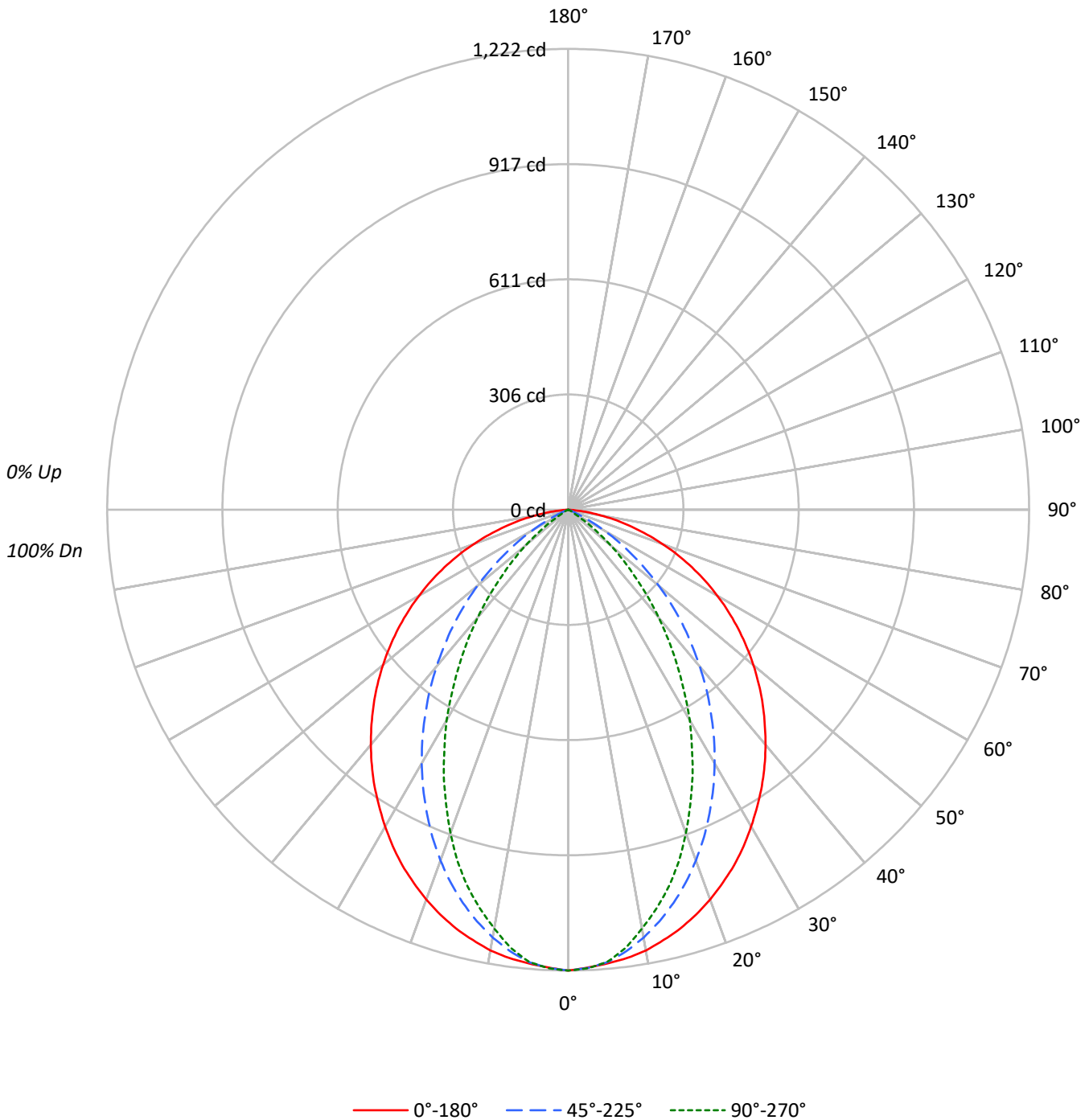
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 1980.9 lumens  
Efficiency: N/A  
Efficacy: 57.1 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): 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	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°	8639	8639	8639
5°	8570	8544	8535
10°	8521	8269	8095
15°	8413	7898	7562
20°	8274	7445	6862
25°	8115	6916	6084
30°	7920	6338	5260
35°	7725	5697	4349
40°	7511	5007	3443
45°	7290	4275	2494
50°	7046	3450	1612
55°	6778	2523	716
60°	6456	1558	205
65°	6059	567	122
70°	5484	200	50
75°	4764	66	33
80°	3648	49	0
85°	1671	0	0

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 7290 cd/sqm



TEST NUMBER: P1056358

CATALOG NUMBER: S125R3DR-S1090D830-X4F0-XX-UDD-F-B

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	113.5	5.7
10°-20°	304.8	15.4
20°-30°	412.4	20.8
30°-40°	423.6	21.4
40°-50°	350.9	17.7
50°-60°	225.3	11.4
60°-70°	108.8	5.5
70°-80°	36.8	1.9
80°-90°	4.7	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°	830.7	41.9
0°-40°	1254.3	63.3
0°-60°	1830.5	92.4
0°-90°	1980.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1980.9	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1222	1222	1222	1222	1222	
5°	1208	1217	1204	1197	1203	115
15°	1150	1135	1079	1042	1033	324
25°	1040	990	887	807	780	479
35°	895	809	660	545	504	560
45°	729	609	428	296	250	562
55°	550	403	205	90	58	491
65°	362	200	34	10	7	358
75°	174	38	2	1	1	185
85°	21	0	0	0	0	33
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1222.1	1222.1	1222.1	1222.1	1222.1
2.5°	1214.9	1224.6	1216.1	1214.9	1217.3
5°	1207.6	1217.3	1204.0	1196.7	1202.8
7.5°	1199.1	1204.0	1180.9	1168.8	1171.3
10°	1187.0	1185.8	1151.9	1131.3	1127.7
12.5°	1168.8	1162.8	1118.0	1088.9	1082.8
15°	1149.5	1134.9	1079.2	1041.7	1033.2
17.5°	1126.4	1103.4	1036.8	988.4	976.3
20°	1099.8	1068.3	989.6	930.2	912.1
22.5°	1070.7	1030.8	939.9	869.7	845.4
25°	1040.4	989.6	886.6	806.7	780.0
27.5°	1006.5	947.2	833.3	742.5	709.8
30°	970.2	902.4	776.4	677.1	644.4
32.5°	932.6	857.6	719.5	611.7	571.7
35°	895.1	809.1	660.1	545.1	503.9
37.5°	855.1	760.7	602.0	482.1	437.3
40°	813.9	711.0	542.6	416.7	373.1
42.5°	771.6	660.1	483.3	354.9	310.1
45°	729.2	609.2	427.6	295.5	249.5
47.5°	685.6	557.2	369.4	237.4	197.4
50°	640.7	506.3	313.7	185.3	146.6
52.5°	595.9	454.2	256.8	134.4	99.3
55°	549.9	403.3	204.7	89.6	58.1
57.5°	503.9	351.3	156.2	49.7	21.8
60°	456.6	301.6	110.2	17.0	14.5
62.5°	410.6	248.3	69.0	13.3	10.9
65°	362.2	199.9	33.9	9.7	7.3
67.5°	314.9	153.8	14.5	6.1	3.6
70°	265.3	111.4	9.7	3.6	2.4
72.5°	219.2	71.5	6.1	2.4	1.2
75°	174.4	37.5	2.4	1.2	1.2
77.5°	130.8	15.7	1.2	1.2	1.2
80°	89.6	7.3	1.2	1.2	0.0
82.5°	53.3	2.4	1.2	1.2	0.0
85°	20.6	0.0	0.0	0.0	0.0
87.5°	1.2	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	18.56	19.95	18.93	20.26	20.57	3.43	4.82	3.80	5.13	5.44
	3H	20.11	21.34	20.49	21.67	22.03	3.35	4.58	3.73	4.91	5.27
	4H	20.63	21.78	21.03	22.13	22.51	3.29	4.43	3.69	4.78	5.16
	6H	20.97	22.02	21.39	22.39	22.79	3.22	4.27	3.63	4.64	5.03
	8H	21.05	22.05	21.48	22.44	22.84	3.17	4.17	3.60	4.56	4.97
	12H	21.07	22.02	21.50	22.41	22.84	3.13	4.09	3.57	4.47	4.90
4H	2H	18.36	19.51	18.77	19.86	20.24	4.29	5.44	4.69	5.79	6.17
	3H	19.98	20.91	20.39	21.31	21.72	4.24	5.17	4.65	5.58	5.98
	4H	20.50	21.33	20.93	21.75	22.19	4.16	5.00	4.60	5.42	5.86
	6H	20.87	21.59	21.34	22.04	22.50	4.10	4.82	4.56	5.26	5.73
	8H	20.97	21.64	21.44	22.09	22.56	4.05	4.72	4.51	5.16	5.63
	12H	21.01	21.60	21.49	22.08	22.56	4.00	4.60	4.49	5.08	5.55
8H	4H	20.37	21.04	20.84	21.49	21.96	5.18	5.85	5.65	6.30	6.77
	6H	20.73	21.28	21.23	21.77	22.25	5.10	5.65	5.60	6.14	6.62
	8H	20.82	21.31	21.34	21.83	22.32	5.05	5.54	5.57	6.05	6.55
	12H	20.87	21.30	21.38	21.79	22.36	5.01	5.44	5.52	5.94	6.51
12H	4H	20.33	20.92	20.81	21.41	21.88	5.26	5.86	5.75	6.34	6.81
	6H	20.67	21.16	21.19	21.67	22.17	5.16	5.66	5.68	6.17	6.66
	8H	20.78	21.22	21.29	21.71	22.28	5.13	5.57	5.64	6.06	6.63