

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: P1056496

Luminaire Tested: S125R3DR-H1090D835-X4F0-XX-UDD-F-B

Issue Date: 7/25/2025

**Test Information**

Test Method: LM-79-2024  
Report Number: P1056496  
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-H1090D835-X4F0-XX-UDD-F-B  
Description: DEFINE 5, BLACK 3-INCH REGRESSED DIRECT RECESSED HOUSING WITH FROSTED LENS  
HIGH PERFORMANCE LIGHT ENGINE  
Light Source: 3500K CCT, 80 CRI LEDS  
Ballast/Driver: -

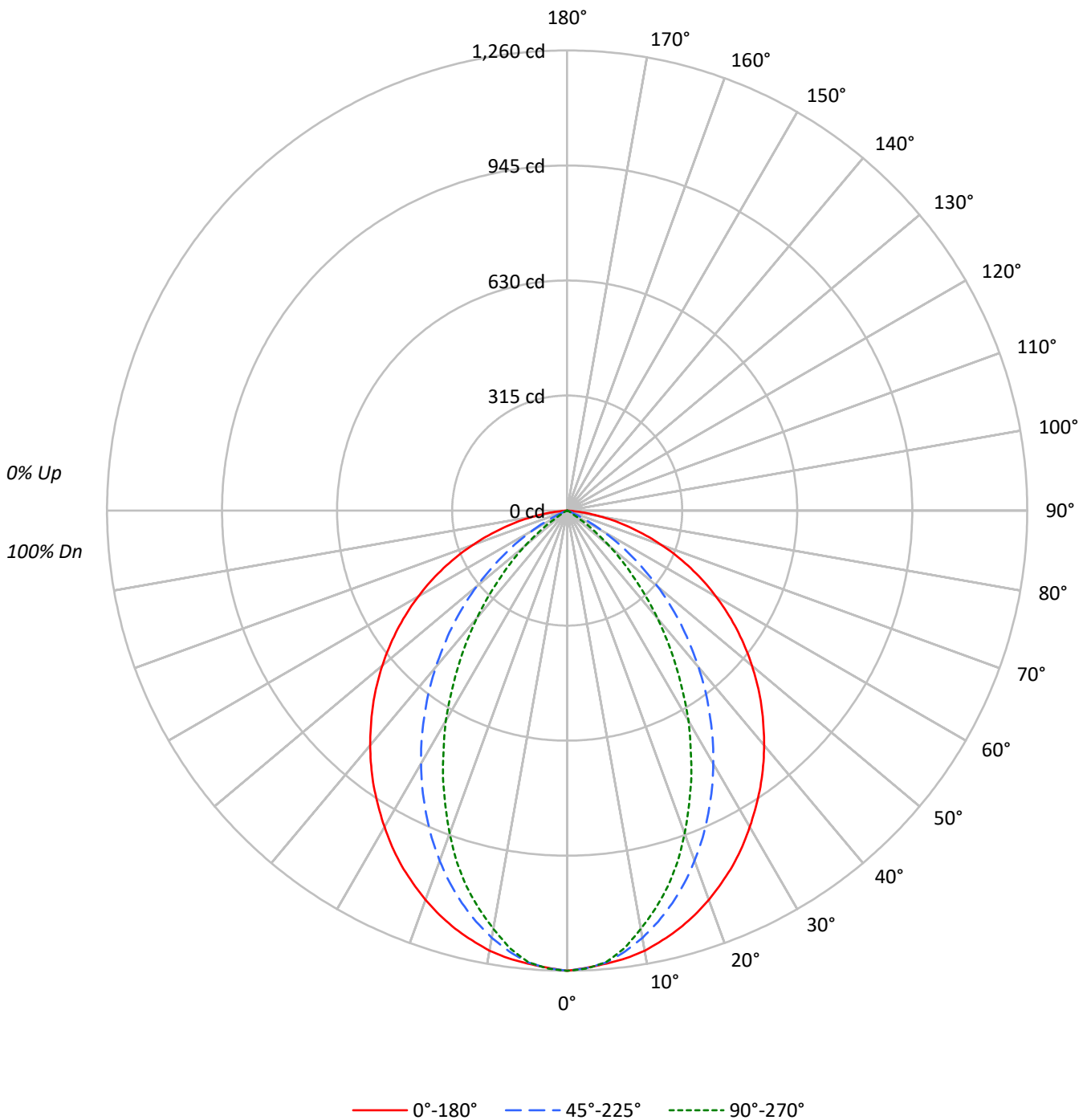
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 2042.4 lumens  
Efficiency: N/A  
Efficacy: 66.1 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): 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	111	108	104	101	109	106	103	100	101	99	97	98	96	94	94	93	91	89					89			
2	103	97	91	87	101	95	90	86	92	88	84	89	85	82	86	83	80	78					78			
3	96	87	81	75	94	86	80	75	83	78	74	80	76	72	78	74	71	69					69			
4	89	79	72	66	87	78	71	66	76	70	65	73	68	64	71	67	63	61					61			
5	83	72	64	59	81	71	64	58	69	63	58	67	62	57	65	61	57	55					55			
6	77	66	58	53	76	65	58	52	63	57	52	62	56	52	60	55	51	49					49			
7	72	61	53	47	71	60	52	47	58	52	47	57	51	47	56	50	46	45					45			
8	68	56	48	43	66	55	48	43	54	47	43	53	47	43	52	46	42	41					41			
9	64	52	44	39	62	51	44	39	50	44	39	49	43	39	48	43	39	37					37			
10	60	48	41	36	59	48	41	36	47	40	36	46	40	36	45	40	36	34					34			

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

	0°	45°	90°
0°	8908	8908	8908
5°	8836	8809	8800
10°	8786	8526	8346
15°	8674	8144	7797
20°	8531	7676	7075
25°	8368	7131	6274
30°	8165	6534	5423
35°	7965	5874	4483
40°	7744	5163	3549
45°	7516	4407	2572
50°	7265	3558	1662
55°	6988	2602	738
60°	6656	1606	212
65°	6246	585	125
70°	5653	207	52
75°	4911	68	33
80°	3762	49	0
85°	1720	0	0

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 7516 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	117.0	5.7
10°-20°	314.3	15.4
20°-30°	425.2	20.8
30°-40°	436.8	21.4
40°-50°	361.8	17.7
50°-60°	232.3	11.4
60°-70°	112.2	5.5
70°-80°	37.9	1.9
80°-90°	4.9	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°	856.5	41.9
0°-40°	1293.2	63.3
0°-60°	1887.4	92.4
0°-90°	2042.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2042.4	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1260	1260	1260	1260	1260	
5°	1245	1255	1241	1234	1240	118
15°	1185	1170	1113	1074	1065	334
25°	1073	1020	914	832	804	494
35°	923	834	681	562	520	577
45°	752	628	441	305	257	580
55°	567	416	211	92	60	507
65°	373	206	35	10	8	369
75°	180	39	2	1	1	191
85°	21	0	0	0	0	34
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1260.1	1260.1	1260.1	1260.1	1260.1
2.5°	1252.6	1262.6	1253.8	1252.6	1255.1
5°	1245.1	1255.1	1241.4	1233.9	1240.1
7.5°	1236.4	1241.4	1217.6	1205.1	1207.6
10°	1223.9	1222.6	1187.7	1166.4	1162.7
12.5°	1205.1	1198.9	1152.7	1122.7	1116.5
15°	1185.2	1170.2	1112.7	1074.0	1065.3
17.5°	1161.4	1137.7	1069.0	1019.1	1006.6
20°	1134.0	1101.5	1020.3	959.1	940.4
22.5°	1104.0	1062.8	969.1	896.7	871.7
25°	1072.8	1020.3	914.2	831.7	804.3
27.5°	1037.8	976.6	859.2	765.5	731.8
30°	1000.3	930.4	800.5	698.1	664.4
32.5°	961.6	884.2	741.8	630.7	589.5
35°	922.9	834.2	680.6	562.0	519.5
37.5°	881.7	784.3	620.7	497.0	450.8
40°	839.2	733.1	559.5	429.6	384.6
42.5°	795.5	680.6	498.3	365.9	319.7
45°	751.8	628.2	440.8	304.7	257.3
47.5°	706.8	574.5	380.9	244.8	203.6
50°	660.6	522.0	323.5	191.1	151.1
52.5°	614.4	468.3	264.8	138.6	102.4
55°	567.0	415.9	211.1	92.4	59.9
57.5°	519.5	362.2	161.1	51.2	22.5
60°	470.8	311.0	113.6	17.5	15.0
62.5°	423.4	256.0	71.2	13.7	11.2
65°	373.4	206.1	35.0	10.0	7.5
67.5°	324.7	158.6	15.0	6.2	3.7
70°	273.5	114.9	10.0	3.7	2.5
72.5°	226.0	73.7	6.2	2.5	1.2
75°	179.8	38.7	2.5	1.2	1.2
77.5°	134.9	16.2	1.2	1.2	1.2
80°	92.4	7.5	1.2	1.2	0.0
82.5°	54.9	2.5	1.2	1.2	0.0
85°	21.2	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	18.67	20.05	19.03	20.36	20.68	3.53	4.92	3.90	5.23	5.54
	3H	20.22	21.44	20.60	21.77	22.14	3.45	4.68	3.83	5.01	5.37
	4H	20.74	21.88	21.14	22.23	22.62	3.39	4.53	3.79	4.88	5.26
	6H	21.08	22.13	21.49	22.50	22.89	3.32	4.37	3.73	4.74	5.13
	8H	21.16	22.16	21.59	22.55	22.95	3.27	4.27	3.70	4.66	5.07
	12H	21.18	22.13	21.61	22.51	22.94	3.24	4.19	3.67	4.57	5.00
4H	2H	18.47	19.61	18.87	19.97	20.35	4.40	5.54	4.80	5.89	6.27
	3H	20.08	21.02	20.50	21.42	21.82	4.35	5.28	4.76	5.68	6.08
	4H	20.61	21.44	21.04	21.86	22.30	4.27	5.10	4.70	5.52	5.96
	6H	20.98	21.70	21.44	22.15	22.61	4.20	4.92	4.66	5.37	5.83
	8H	21.08	21.75	21.55	22.20	22.67	4.15	4.82	4.62	5.27	5.74
	12H	21.12	21.71	21.60	22.19	22.66	4.11	4.70	4.59	5.18	5.66
8H	4H	20.48	21.15	20.95	21.60	22.07	5.29	5.96	5.76	6.41	6.88
	6H	20.83	21.38	21.34	21.88	22.36	5.20	5.75	5.71	6.25	6.73
	8H	20.93	21.42	21.45	21.94	22.43	5.15	5.64	5.67	6.16	6.65
	12H	20.97	21.41	21.49	21.90	22.47	5.11	5.55	5.62	6.04	6.61
12H	4H	20.44	21.03	20.92	21.51	21.99	5.37	5.96	5.85	6.44	6.92
	6H	20.77	21.27	21.29	21.78	22.27	5.27	5.76	5.79	6.27	6.77
	8H	20.89	21.32	21.40	21.82	22.39	5.23	5.67	5.75	6.16	6.73