

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: P1056551

Luminaire Tested: S125R3DR-H375D835-X4F0-XX-UDD-F-S

Issue Date: 7/25/2025

**Test Information**

Test Method: LM-79-2024  
Report Number: P1056551  
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-H375D835-X4F0-XX-UDD-F-S  
Description: DEFINE 5, SILVER 3-INCH REGRESSED DIRECT RECESSED HOUSING WITH FROSTED LENS  
HIGH PERFORMANCE LIGHT ENGINE  
Light Source: 3500K CCT, 80 CRI LEDS  
Ballast/Driver: -

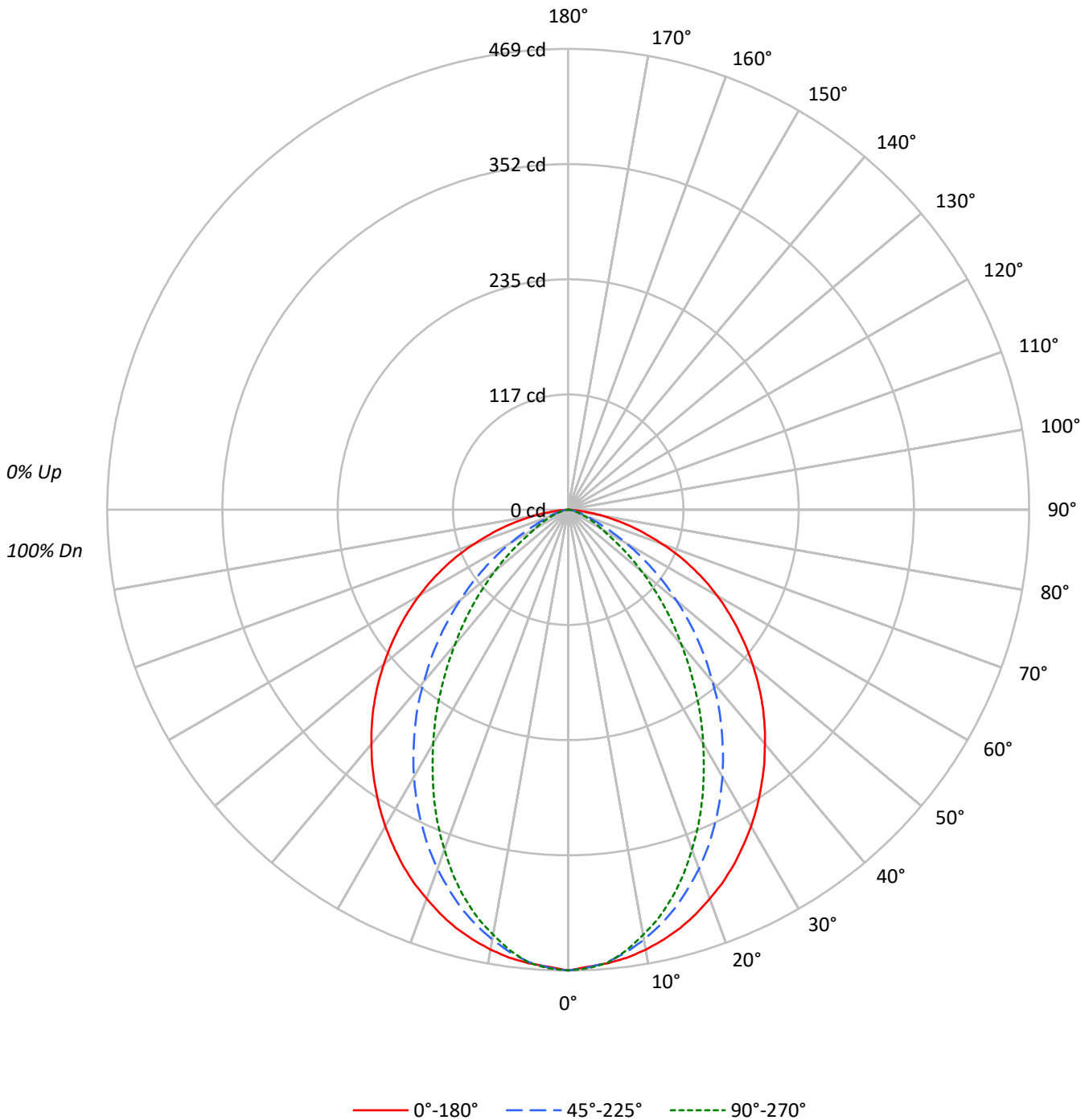
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 847.6 lumens  
Efficiency: N/A  
Efficacy: 72.4 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): 11.7  
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	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°	3315	3315	3315
5°	3288	3279	3284
10°	3263	3189	3154
15°	3225	3073	2990
20°	3169	2926	2770
25°	3109	2753	2519
30°	3037	2562	2243
35°	2957	2346	1952
40°	2873	2108	1651
45°	2791	1858	1368
50°	2693	1580	1074
55°	2589	1284	781
60°	2474	957	558
65°	2323	632	437
70°	2100	440	306
75°	1827	284	238
80°	1433	212	195
85°	738	178	138

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 2791 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	43.7	5.2
10°-20°	118.7	14.0
20°-30°	164.2	19.4
30°-40°	174.0	20.5
40°-50°	151.8	17.9
50°-60°	108.0	12.7
60°-70°	60.1	7.1
70°-80°	23.1	2.7
80°-90°	4.0	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°	326.6	38.5
0°-40°	500.6	59.1
0°-60°	760.4	89.7
0°-90°	847.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	847.6	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	469	469	469	469	469	
5°	463	467	462	461	463	44
15°	441	437	420	411	409	124
25°	399	385	353	331	323	183
35°	343	319	272	239	226	214
45°	279	246	186	148	137	215
55°	210	168	104	72	63	188
65°	139	91	38	28	26	137
75°	67	26	10	9	9	71
85°	9	3	2	2	2	14
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	468.9	468.9	468.9	468.9	468.9
2.5°	465.5	470.2	466.3	466.8	467.2
5°	463.3	466.8	462.0	460.7	462.8
7.5°	459.8	462.4	454.2	451.1	452.4
10°	454.6	455.5	444.2	439.8	439.4
12.5°	448.1	446.8	432.9	425.9	425.5
15°	440.7	436.8	419.9	410.7	408.6
17.5°	431.6	425.5	404.7	392.9	389.5
20°	421.2	412.9	389.0	373.8	368.2
22.5°	410.7	399.5	371.7	352.6	346.5
25°	398.6	385.1	353.0	331.3	323.0
27.5°	385.6	369.5	333.9	308.7	298.7
30°	372.1	353.4	313.9	285.7	274.8
32.5°	357.8	336.5	293.1	262.3	251.0
35°	342.6	319.1	271.8	238.8	226.2
37.5°	327.4	301.3	251.0	215.8	202.8
40°	311.3	283.1	228.4	192.3	178.9
42.5°	295.7	264.4	207.1	170.2	158.0
45°	279.2	245.8	185.8	148.5	136.8
47.5°	262.3	226.2	164.6	128.1	116.4
50°	244.9	207.1	143.7	108.1	97.7
52.5°	227.5	188.0	124.2	89.0	79.9
55°	210.1	168.5	104.2	72.1	63.4
57.5°	192.8	149.4	85.5	56.4	48.6
60°	175.0	129.8	67.7	41.7	39.5
62.5°	157.2	110.7	52.5	34.3	32.6
65°	138.9	91.2	37.8	27.8	26.1
67.5°	120.7	73.4	27.4	21.3	20.0
70°	101.6	56.0	21.3	16.1	14.8
72.5°	83.4	40.4	15.2	11.7	11.3
75°	66.9	26.1	10.4	8.7	8.7
77.5°	50.4	15.6	7.4	6.5	6.5
80°	35.2	9.1	5.2	4.8	4.8
82.5°	21.3	4.8	3.5	3.0	3.0
85°	9.1	2.6	2.2	1.7	1.7
87.5°	1.7	0.9	0.9	0.9	0.9
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	15.33	16.77	15.69	17.08	17.40	7.96	9.40	8.32	9.72	10.03
	3H	16.89	18.17	17.26	18.50	18.86	8.52	9.81	8.90	10.14	10.50
	4H	17.41	18.61	17.81	18.96	19.34	8.65	9.85	9.05	10.20	10.58
	6H	17.74	18.85	18.16	19.22	19.61	8.71	9.82	9.13	10.19	10.58
	8H	17.83	18.88	18.26	19.27	19.67	8.72	9.77	9.15	10.16	10.56
	12H	17.85	18.86	18.28	19.24	19.67	8.71	9.71	9.14	10.10	10.53
4H	2H	15.22	16.43	15.62	16.77	17.16	8.52	9.73	8.93	10.08	10.46
	3H	16.89	17.88	17.30	18.28	18.68	9.20	10.19	9.61	10.59	10.99
	4H	17.44	18.32	17.87	18.74	19.18	9.36	10.24	9.79	10.66	11.10
	6H	17.83	18.60	18.29	19.04	19.50	9.47	10.23	9.93	10.68	11.14
	8H	17.94	18.65	18.40	19.10	19.56	9.48	10.19	9.95	10.64	11.11
	12H	17.98	18.62	18.47	19.10	19.57	9.48	10.11	9.97	10.60	11.07
8H	4H	17.34	18.06	17.81	18.50	18.97	9.63	10.34	10.09	10.79	11.26
	6H	17.73	18.31	18.23	18.81	19.29	9.76	10.35	10.26	10.84	11.32
	8H	17.84	18.36	18.35	18.87	19.36	9.79	10.31	10.31	10.83	11.32
	12H	17.90	18.36	18.41	18.86	19.43	9.81	10.27	10.32	10.77	11.33
12H	4H	17.31	17.94	17.79	18.42	18.89	9.64	10.28	10.13	10.76	11.23
	6H	17.68	18.20	18.19	18.71	19.20	9.77	10.30	10.29	10.81	11.30
	8H	17.80	18.27	18.32	18.76	19.33	9.83	10.29	10.34	10.79	11.36