

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: P1056581

Luminaire Tested: S125R3DR-H610D840-X4F0-XX-UDD-F-S

Issue Date: 7/25/2025

**Test Information**

Test Method: LM-79-2024  
Report Number: P1056581  
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-H610D840-X4F0-XX-UDD-F-S  
Description: DEFINE 5, SILVER 3-INCH REGRESSED DIRECT RECESSED HOUSING WITH FROSTED LENS  
HIGH PERFORMANCE LIGHT ENGINE  
Light Source: 4000K CCT, 80 CRI LEDS  
Ballast/Driver: -

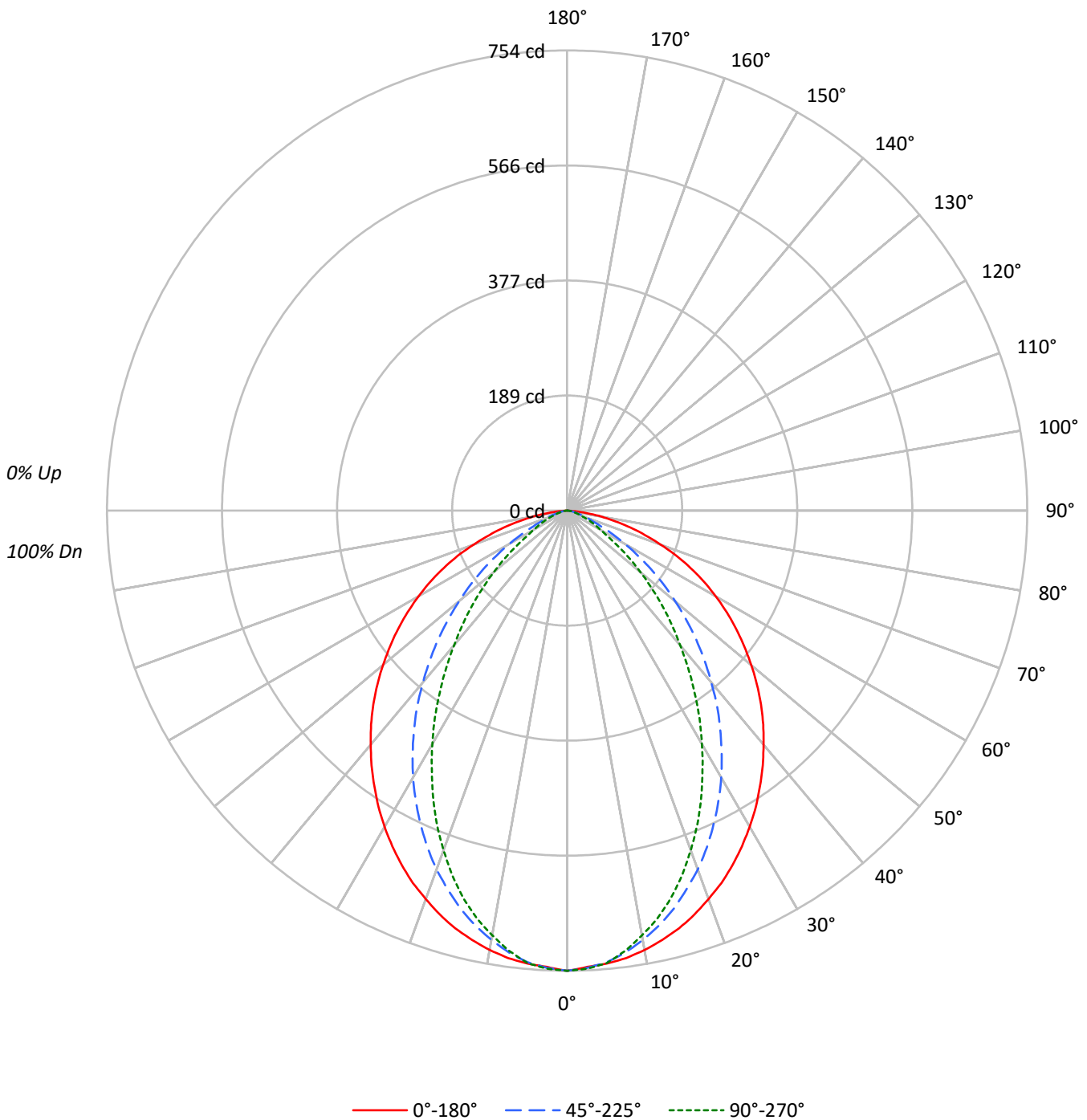
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 1363.1 lumens  
Efficiency: N/A  
Efficacy: 78.8 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): 17.3  
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°	5331	5331	5331
5°	5287	5273	5283
10°	5248	5128	5073
15°	5187	4942	4809
20°	5095	4707	4454
25°	5000	4428	4052
30°	4885	4121	3608
35°	4754	3772	3140
40°	4621	3390	2655
45°	4489	2988	2199
50°	4331	2542	1728
55°	4166	2066	1256
60°	3979	1540	898
65°	3737	1015	701
70°	3377	707	490
75°	2936	459	382
80°	2304	342	313
85°	1192	284	227

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 4489 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	70.2	5.2
10°-20°	191.0	14.0
20°-30°	264.1	19.4
30°-40°	279.8	20.5
40°-50°	244.2	17.9
50°-60°	173.7	12.7
60°-70°	96.6	7.1
70°-80°	37.1	2.7
80°-90°	6.4	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°	525.3	38.5
0°-40°	805.0	59.1
0°-60°	1222.9	89.7
0°-90°	1363.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1363.1	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	754	754	754	754	754	
5°	745	751	743	741	744	71
15°	709	702	675	661	657	200
25°	641	619	568	533	520	295
35°	551	513	437	384	364	345
45°	449	395	299	239	220	346
55°	338	271	168	116	102	302
65°	223	147	61	45	42	221
75°	108	42	17	14	14	114
85°	15	4	4	3	3	22
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	754.1	754.1	754.1	754.1	754.1
2.5°	748.5	756.2	749.9	750.6	751.3
5°	745.1	750.6	743.0	740.9	744.4
7.5°	739.5	743.7	730.4	725.5	727.6
10°	731.1	732.5	714.3	707.3	706.7
12.5°	720.6	718.5	696.2	685.0	684.3
15°	708.7	702.5	675.2	660.6	657.1
17.5°	694.1	684.3	650.8	631.9	626.4
20°	677.3	664.1	625.7	601.2	592.1
22.5°	660.6	642.4	597.7	567.0	557.2
25°	641.0	619.4	567.7	532.8	519.5
27.5°	620.1	594.2	537.0	496.5	480.4
30°	598.4	568.4	504.9	459.5	442.0
32.5°	575.4	541.2	471.3	421.8	403.6
35°	550.9	513.2	437.1	384.0	363.8
37.5°	526.5	484.6	403.6	347.0	326.1
40°	500.7	455.3	367.3	309.3	287.7
42.5°	475.5	425.2	333.1	273.7	254.2
45°	449.0	395.2	298.9	238.8	220.0
47.5°	421.8	363.8	264.6	206.0	187.1
50°	393.8	333.1	231.1	173.9	157.1
52.5°	365.9	302.4	199.7	143.1	128.5
55°	338.0	270.9	167.6	115.9	101.9
57.5°	310.0	240.2	137.6	90.8	78.2
60°	281.4	208.8	108.9	67.0	63.5
62.5°	252.8	178.1	84.5	55.2	52.4
65°	223.4	146.6	60.7	44.7	41.9
67.5°	194.1	118.0	44.0	34.2	32.1
70°	163.4	90.1	34.2	25.8	23.7
72.5°	134.1	64.9	24.4	18.9	18.2
75°	107.5	41.9	16.8	14.0	14.0
77.5°	81.0	25.1	11.9	10.5	10.5
80°	56.6	14.7	8.4	7.7	7.7
82.5°	34.2	7.7	5.6	4.9	4.9
85°	14.7	4.2	3.5	2.8	2.8
87.5°	2.8	1.4	1.4	1.4	1.4
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	16.98	18.42	17.34	18.73	19.05	9.61	11.06	9.98	11.37	11.69
	3H	18.53	19.82	18.91	20.15	20.51	10.18	11.46	10.56	11.79	12.16
	4H	19.06	20.26	19.46	20.61	20.99	10.30	11.50	10.70	11.85	12.23
	6H	19.39	20.50	19.81	20.87	21.26	10.37	11.48	10.78	11.84	12.24
	8H	19.48	20.53	19.90	20.92	21.32	10.37	11.42	10.80	11.81	12.22
	12H	19.50	20.51	19.93	20.89	21.32	10.36	11.37	10.80	11.75	12.18
4H	2H	16.87	18.07	17.27	18.42	18.80	10.18	11.38	10.58	11.73	12.11
	3H	18.54	19.53	18.95	19.93	20.33	10.85	11.84	11.26	12.24	12.64
	4H	19.09	19.97	19.52	20.39	20.83	11.01	11.89	11.44	12.31	12.75
	6H	19.48	20.25	19.94	20.69	21.15	11.12	11.89	11.58	12.33	12.79
	8H	19.59	20.30	20.05	20.74	21.21	11.13	11.85	11.60	12.29	12.76
	12H	19.63	20.27	20.12	20.75	21.22	11.14	11.77	11.62	12.25	12.72
8H	4H	18.99	19.70	19.46	20.15	20.62	11.28	11.99	11.74	12.44	12.91
	6H	19.38	19.96	19.88	20.46	20.94	11.41	12.00	11.91	12.49	12.97
	8H	19.49	20.01	20.00	20.52	21.01	11.44	11.97	11.96	12.48	12.97
	12H	19.55	20.01	20.06	20.51	21.07	11.46	11.93	11.98	12.42	12.99
12H	4H	18.95	19.59	19.44	20.07	20.54	11.29	11.93	11.78	12.41	12.88
	6H	19.33	19.85	19.84	20.36	20.85	11.43	11.95	11.94	12.46	12.95
	8H	19.45	19.92	19.97	20.41	20.98	11.48	11.95	12.00	12.44	13.01