

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: P1056597

Luminaire Tested: S125R3DR-H610D940-X4F0-XX-UDD-F-W

Issue Date: 7/25/2025

**Test Information**

Test Method: LM-79-2024  
Report Number: P1056597  
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-H610D940-X4F0-XX-UDD-F-W  
Description: DEFINE 5, WHITE 3-INCH REGRESSED DIRECT RECESSED HOUSING WITH FROSTED LENS  
HIGH PERFORMANCE LIGHT ENGINE  
Light Source: 4000K CCT, 90 CRI LEDS  
Ballast/Driver: -

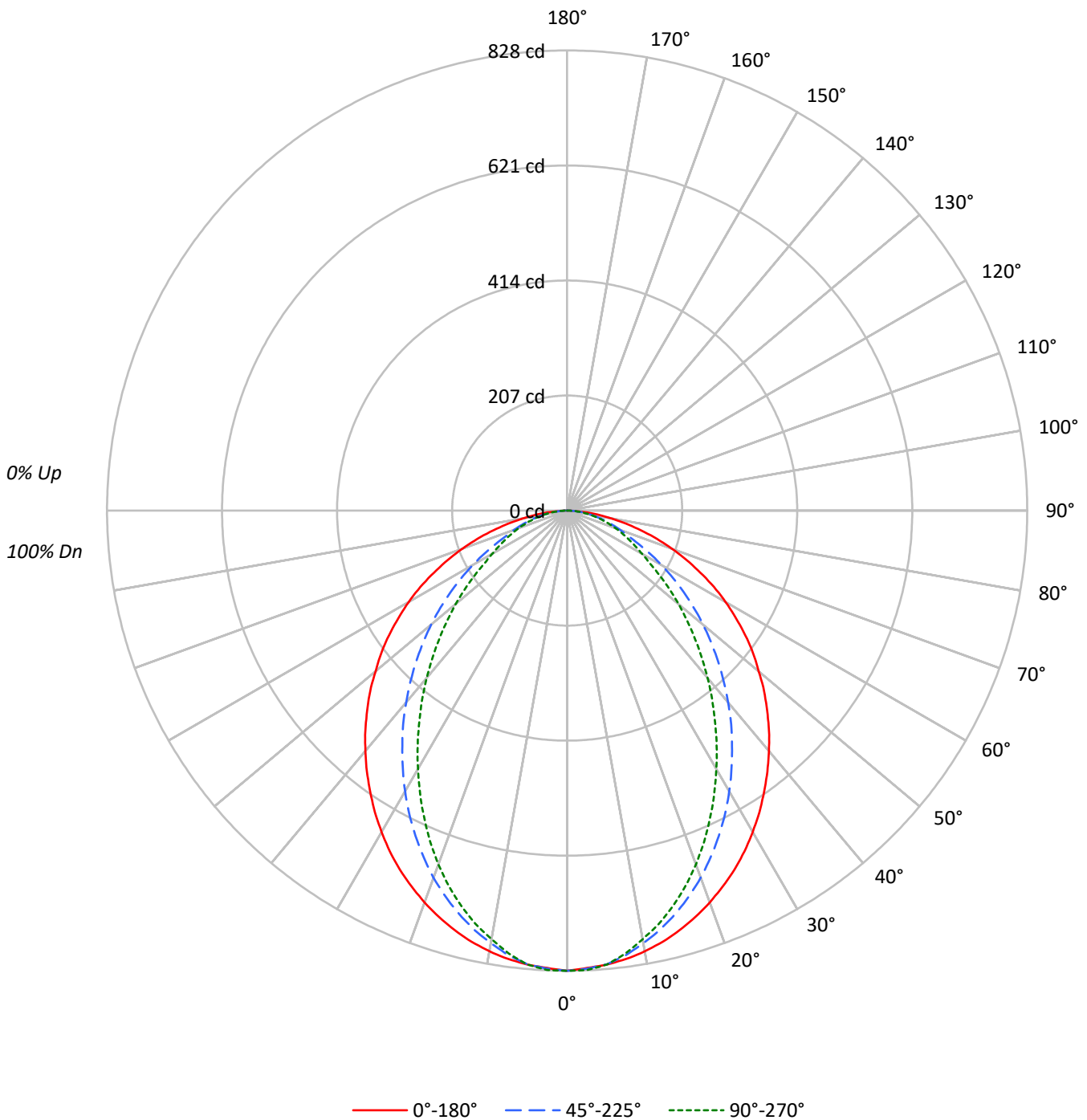
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 1755.0 lumens  
Efficiency: N/A  
Efficacy: 101.4 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): 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	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	31	42	35	30	41	35	30	40	34	30	28

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

	0°	45°	90°
0°	5854	5854	5854
5°	5819	5815	5819
10°	5780	5674	5621
15°	5722	5501	5388
20°	5645	5288	5098
25°	5560	5036	4752
30°	5450	4761	4384
35°	5332	4464	4002
40°	5212	4159	3625
45°	5086	3840	3248
50°	4950	3513	2875
55°	4825	3154	2501
60°	4656	2773	2197
65°	4424	2352	2042
70°	4155	2102	1912
75°	3756	1937	1803
80°	3265	1759	1681
85°	2547	1549	1549

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 5086 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	77.5	4.4
10°-20°	212.7	12.1
20°-30°	300.5	17.1
30°-40°	330.8	18.8
40°-50°	308.6	17.6
50°-60°	246.3	14.0
60°-70°	165.8	9.4
70°-80°	88.3	5.0
80°-90°	24.5	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°	590.7	33.7
0°-40°	921.5	52.5
0°-60°	1476.4	84.1
0°-90°	1755.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1755.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	828	828	828	828	828	
5°	820	827	819	817	820	78
15°	782	778	752	739	736	220
25°	713	691	646	617	609	328
35°	618	581	517	477	464	387
45°	509	461	384	337	325	393
55°	392	332	256	215	203	350
65°	264	207	141	124	122	262
75°	138	91	71	67	66	146
85°	31	22	19	20	19	38
90°	0	0	0	0	0	

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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	828.1	828.1	828.1	828.1	828.1
2.5°	823.7	830.5	825.0	826.2	827.4
5°	820.0	826.8	819.4	817.0	820.0
7.5°	813.9	819.4	807.1	801.5	804.0
10°	805.2	808.9	790.4	783.0	783.0
12.5°	794.8	794.8	772.6	762.1	762.1
15°	781.8	777.5	751.6	738.7	736.2
17.5°	767.0	759.0	728.2	711.5	708.4
20°	750.4	737.4	702.9	681.3	677.6
22.5°	731.9	715.2	675.1	648.6	644.3
25°	712.8	691.2	645.6	617.2	609.2
27.5°	691.2	665.3	615.3	583.3	573.4
30°	667.7	638.2	583.3	547.5	537.0
32.5°	643.7	610.4	550.6	512.4	500.7
35°	617.8	581.4	517.3	476.6	463.7
37.5°	591.9	552.5	484.6	442.1	428.5
40°	564.8	521.6	450.7	406.9	392.8
42.5°	537.7	491.4	417.4	373.0	358.2
45°	508.7	460.6	384.1	337.3	324.9
47.5°	480.9	429.1	351.4	305.8	292.3
50°	450.1	396.5	319.4	273.8	261.4
52.5°	421.7	364.4	287.3	244.8	231.8
55°	391.5	332.3	255.9	215.2	202.9
57.5°	360.1	300.3	225.7	187.4	175.7
60°	329.3	268.2	196.1	160.9	155.4
62.5°	297.8	238.0	168.3	141.2	137.5
65°	264.5	206.6	140.6	124.5	122.1
67.5°	233.1	176.3	118.4	109.1	106.7
70°	201.0	146.1	101.7	93.7	92.5
72.5°	169.6	117.1	85.7	80.2	78.9
75°	137.5	91.3	70.9	66.6	66.0
77.5°	107.9	68.4	56.1	54.3	53.0
80°	80.2	51.2	43.2	41.9	41.3
82.5°	54.9	35.1	30.8	30.8	29.6
85°	31.4	21.6	19.1	19.7	19.1
87.5°	11.7	9.2	8.6	9.2	9.2
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	17.43	18.97	17.79	19.28	19.60	13.81	15.35	14.17	15.66	15.98
	3H	19.21	20.60	19.59	20.92	21.29	15.29	16.67	15.66	17.00	17.36
	4H	19.87	21.17	20.27	21.51	21.89	15.88	17.17	16.28	17.52	17.90
	6H	20.34	21.54	20.76	21.91	22.30	16.34	17.54	16.75	17.91	18.30
	8H	20.50	21.64	20.92	22.03	22.43	16.50	17.64	16.92	18.03	18.43
	12H	20.59	21.69	21.02	22.07	22.50	16.61	17.71	17.04	18.09	18.52
4H	2H	17.56	18.86	17.96	19.21	19.59	14.49	15.79	14.89	16.13	16.51
	3H	19.53	20.61	19.94	21.01	21.41	16.16	17.24	16.57	17.64	18.04
	4H	20.28	21.25	20.71	21.67	22.11	16.87	17.84	17.30	18.26	18.69
	6H	20.87	21.72	21.33	22.16	22.62	17.45	18.30	17.91	18.74	19.20
	8H	21.08	21.87	21.54	22.32	22.78	17.66	18.45	18.12	18.90	19.36
	12H	21.23	21.94	21.71	22.41	22.88	17.82	18.53	18.30	19.01	19.48
8H	4H	20.34	21.13	20.80	21.58	22.04	17.23	18.02	17.69	18.47	18.93
	6H	21.00	21.66	21.50	22.15	22.62	17.93	18.59	18.43	19.08	19.56
	8H	21.25	21.84	21.77	22.35	22.84	18.22	18.81	18.73	19.31	19.80
	12H	21.46	21.98	21.97	22.48	23.04	18.46	18.98	18.97	19.47	20.03
12H	4H	20.33	21.04	20.82	21.52	21.99	17.28	17.99	17.76	18.47	18.94
	6H	21.00	21.59	21.51	22.09	22.58	18.00	18.59	18.52	19.10	19.59
	8H	21.29	21.81	21.80	22.30	22.87	18.35	18.87	18.86	19.36	19.92