

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: P1056412

Luminaire Tested: S125R3DR-S375D830-X4F0-XX-UDD-F-B

Issue Date: 7/25/2025

**Test Information**

Test Method: LM-79-2024  
Report Number: P1056412  
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-S375D830-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: -

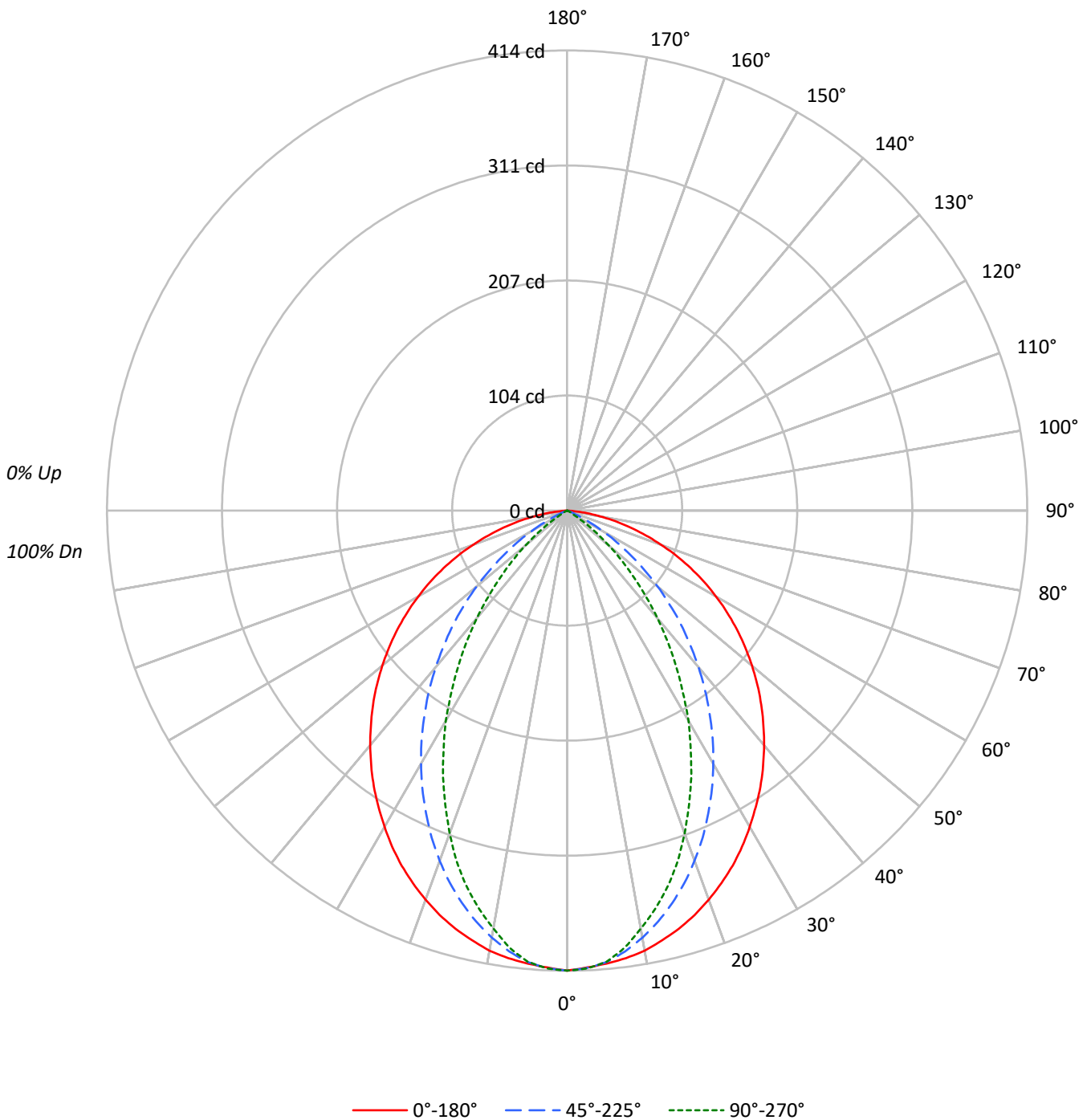
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 670.9 lumens  
Efficiency: N/A  
Efficacy: 53.2 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): 12.6  
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	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°	2926	2926	2926
5°	2902	2894	2891
10°	2886	2800	2741
15°	2849	2675	2561
20°	2802	2522	2324
25°	2749	2342	2061
30°	2682	2147	1782
35°	2617	1930	1473
40°	2544	1696	1166
45°	2469	1448	845
50°	2387	1169	545
55°	2296	854	243
60°	2187	527	69
65°	2052	192	42
70°	1856	68	17
75°	1614	22	11
80°	1238	16	0
85°	568	0	0

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 2469 cd/sqm

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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	38.4	5.7
10°-20°	103.2	15.4
20°-30°	139.7	20.8
30°-40°	143.5	21.4
40°-50°	118.9	17.7
50°-60°	76.3	11.4
60°-70°	36.9	5.5
70°-80°	12.5	1.9
80°-90°	1.6	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°	281.4	41.9
0°-40°	424.8	63.3
0°-60°	620.0	92.4
0°-90°	670.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	670.9	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	414	414	414	414	414	
5°	409	412	408	405	407	39
15°	389	384	366	353	350	110
25°	352	335	300	273	264	162
35°	303	274	224	185	171	190
45°	247	206	145	100	84	190
55°	186	137	69	30	20	166
65°	123	68	12	3	2	121
75°	59	13	1	0	0	63
85°	7	0	0	0	0	11
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	413.9	413.9	413.9	413.9	413.9
2.5°	411.5	414.8	411.9	411.5	412.3
5°	409.0	412.3	407.8	405.3	407.4
7.5°	406.1	407.8	400.0	395.9	396.7
10°	402.0	401.6	390.1	383.2	381.9
12.5°	395.9	393.8	378.7	368.8	366.8
15°	389.3	384.4	365.5	352.8	349.9
17.5°	381.5	373.7	351.2	334.8	330.7
20°	372.5	361.8	335.2	315.1	308.9
22.5°	362.7	349.1	318.4	294.6	286.4
25°	352.4	335.2	300.3	273.2	264.2
27.5°	340.9	320.8	282.3	251.5	240.4
30°	328.6	305.6	263.0	229.3	218.3
32.5°	315.9	290.5	243.7	207.2	193.6
35°	303.2	274.0	223.6	184.6	170.7
37.5°	289.6	257.6	203.9	163.3	148.1
40°	275.7	240.8	183.8	141.1	126.4
42.5°	261.3	223.6	163.7	120.2	105.0
45°	247.0	206.4	144.8	100.1	84.5
47.5°	232.2	188.7	125.1	80.4	66.9
50°	217.0	171.5	106.3	62.8	49.6
52.5°	201.8	153.8	87.0	45.5	33.6
55°	186.3	136.6	69.3	30.4	19.7
57.5°	170.7	119.0	52.9	16.8	7.4
60°	154.7	102.2	37.3	5.7	4.9
62.5°	139.1	84.1	23.4	4.5	3.7
65°	122.7	67.7	11.5	3.3	2.5
67.5°	106.7	52.1	4.9	2.1	1.2
70°	89.8	37.7	3.3	1.2	0.8
72.5°	74.3	24.2	2.1	0.8	0.4
75°	59.1	12.7	0.8	0.4	0.4
77.5°	44.3	5.3	0.4	0.4	0.4
80°	30.4	2.5	0.4	0.4	0.0
82.5°	18.1	0.8	0.4	0.4	0.0
85°	7.0	0.0	0.0	0.0	0.0
87.5°	0.4	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	14.80	16.19	15.17	16.50	16.81	0.00	1.04	0.02	1.35	1.67
	3H	16.35	17.58	16.73	17.91	18.27	0.00	0.81	0.00	1.13	1.50
	4H	16.87	18.02	17.27	18.37	18.75	0.00	0.66	0.00	1.01	1.39
	6H	17.21	18.26	17.63	18.63	19.03	0.00	0.49	0.00	0.86	1.26
	8H	17.29	18.29	17.72	18.68	19.09	0.00	0.40	0.00	0.79	1.19
	12H	17.31	18.26	17.74	18.65	19.08	0.00	0.31	0.00	0.70	1.13
4H	2H	14.60	15.75	15.01	16.10	16.48	0.52	1.67	0.93	2.02	2.40
	3H	16.22	17.15	16.63	17.55	17.96	0.47	1.41	0.88	1.81	2.21
	4H	16.74	17.57	17.17	17.99	18.43	0.39	1.23	0.83	1.65	2.09
	6H	17.11	17.83	17.58	18.28	18.74	0.33	1.05	0.79	1.49	1.96
	8H	17.21	17.88	17.68	18.33	18.80	0.28	0.95	0.75	1.40	1.87
	12H	17.25	17.84	17.73	18.33	18.80	0.24	0.83	0.72	1.31	1.78
8H	4H	16.61	17.28	17.08	17.73	18.20	1.42	2.09	1.88	2.53	3.00
	6H	16.97	17.52	17.47	18.01	18.49	1.33	1.88	1.83	2.38	2.86
	8H	17.06	17.56	17.58	18.07	18.56	1.28	1.77	1.80	2.29	2.78
	12H	17.11	17.54	17.62	18.04	18.61	1.24	1.67	1.75	2.17	2.74
12H	4H	16.57	17.16	17.05	17.64	18.12	1.49	2.09	1.98	2.57	3.04
	6H	16.91	17.40	17.43	17.91	18.41	1.40	1.89	1.92	2.40	2.89
	8H	17.02	17.46	17.53	17.95	18.52	1.36	1.80	1.88	2.29	2.86