

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: P1056423

Luminaire Tested: S125R3DR-S375D850-X4F0-XX-UDD-F-W

Issue Date: 7/25/2025

**Test Information**

Test Method: LM-79-2024  
Report Number: P1056423  
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-S375D850-X4F0-XX-UDD-F-W  
Description: DEFINE 5, WHITE 3-INCH REGRESSED DIRECT RECESSED HOUSING WITH FROSTED LENS  
CORE LIGHT ENGINE  
Light Source: 5000K CCT, 80 CRI LEDS  
Ballast/Driver: -

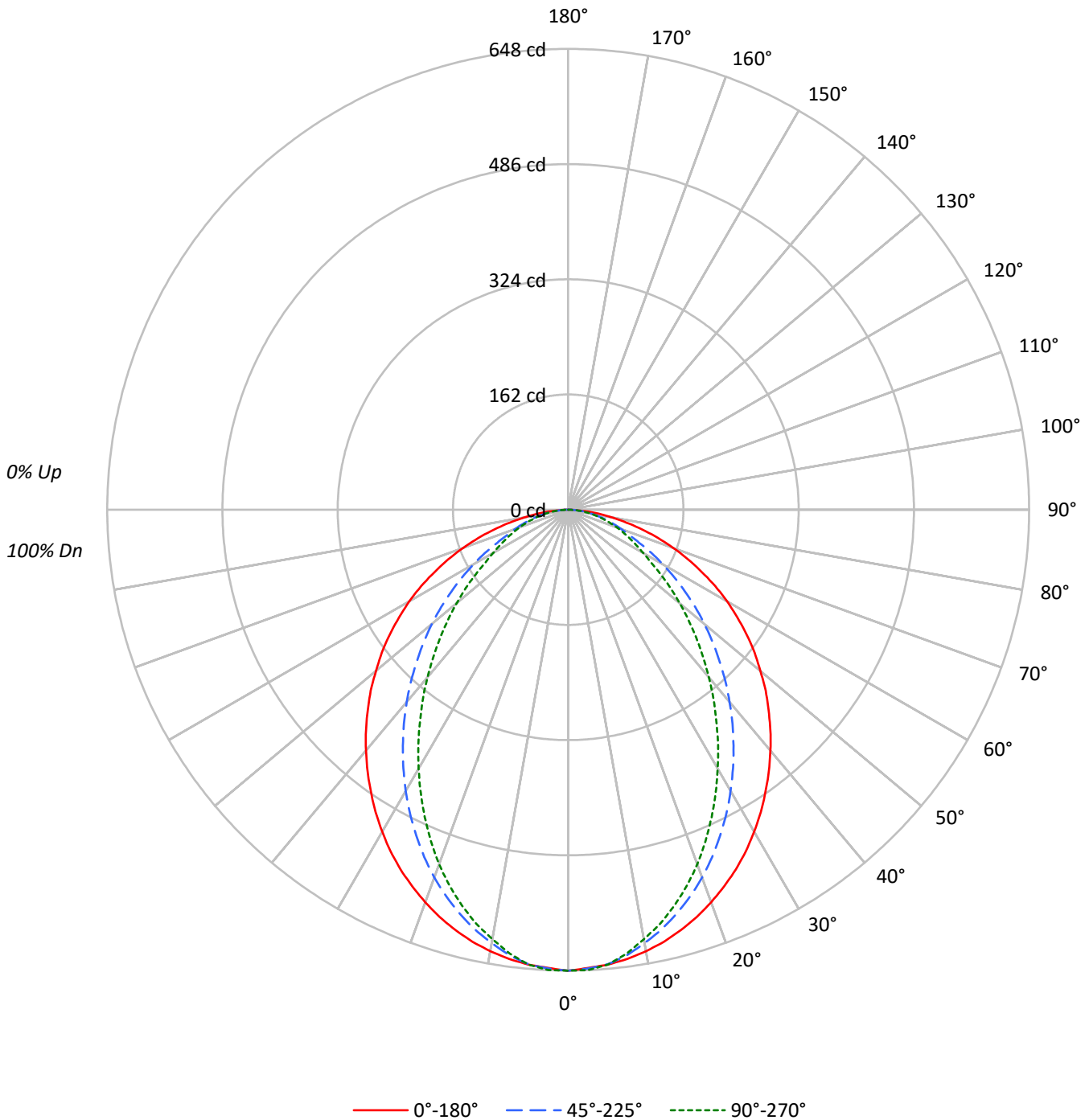
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 1374.0 lumens  
Efficiency: N/A  
Efficacy: 109.0 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): 12.6  
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	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	30	42	35	30	41	35	30	40	34	30					28				

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

	0°	45°	90°
0°	4583	4583	4583
5°	4556	4552	4556
10°	4525	4442	4400
15°	4480	4306	4218
20°	4419	4140	3991
25°	4352	3942	3720
30°	4268	3727	3432
35°	4174	3495	3133
40°	4081	3257	2838
45°	3981	3006	2543
50°	3876	2749	2251
55°	3778	2469	1957
60°	3645	2170	1719
65°	3464	1842	1599
70°	3253	1645	1496
75°	2939	1516	1409
80°	2557	1376	1315
85°	1995	1217	1217

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 3981 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	60.7	4.4
10°-20°	166.5	12.1
20°-30°	235.3	17.1
30°-40°	259.0	18.8
40°-50°	241.6	17.6
50°-60°	192.9	14.0
60°-70°	129.8	9.4
70°-80°	69.1	5.0
80°-90°	19.2	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°	462.4	33.7
0°-40°	721.4	52.5
0°-60°	1155.9	84.1
0°-90°	1374.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1374.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	648	648	648	648	648	
5°	642	647	642	640	642	61
15°	612	609	588	578	576	173
25°	558	541	505	483	477	257
35°	484	455	405	373	363	303
45°	398	361	301	264	254	307
55°	306	260	200	168	159	274
65°	207	162	110	98	96	205
75°	108	71	56	52	52	115
85°	25	17	15	15	15	29
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	648.3	648.3	648.3	648.3	648.3
2.5°	644.9	650.2	645.9	646.8	647.8
5°	642.0	647.3	641.5	639.6	642.0
7.5°	637.2	641.5	631.9	627.5	629.4
10°	630.4	633.3	618.8	613.0	613.0
12.5°	622.2	622.2	604.8	596.6	596.6
15°	612.1	608.7	588.4	578.3	576.3
17.5°	600.5	594.2	570.1	557.0	554.6
20°	587.4	577.3	550.3	533.4	530.5
22.5°	573.0	559.9	528.6	507.8	504.4
25°	558.0	541.1	505.4	483.2	476.9
27.5°	541.1	520.8	481.7	456.6	448.9
30°	522.8	499.6	456.6	428.6	420.4
32.5°	503.9	477.9	431.1	401.1	392.0
35°	483.7	455.2	405.0	373.1	363.0
37.5°	463.4	432.5	379.4	346.1	335.5
40°	442.2	408.4	352.9	318.6	307.5
42.5°	420.9	384.7	326.8	292.0	280.4
45°	398.2	360.6	300.7	264.0	254.4
47.5°	376.5	336.0	275.1	239.4	228.8
50°	352.4	310.4	250.0	214.3	204.7
52.5°	330.2	285.3	224.9	191.6	181.5
55°	306.5	260.2	200.3	168.5	158.8
57.5°	281.9	235.1	176.7	146.7	137.6
60°	257.8	210.0	153.5	126.0	121.6
62.5°	233.1	186.3	131.8	110.5	107.6
65°	207.1	161.7	110.1	97.5	95.6
67.5°	182.5	138.1	92.7	85.4	83.5
70°	157.4	114.4	79.6	73.4	72.4
72.5°	132.7	91.7	67.1	62.8	61.8
75°	107.6	71.4	55.5	52.1	51.6
77.5°	84.5	53.6	43.9	42.5	41.5
80°	62.8	40.1	33.8	32.8	32.3
82.5°	43.0	27.5	24.1	24.1	23.2
85°	24.6	16.9	15.0	15.4	15.0
87.5°	9.2	7.2	6.8	7.2	7.2
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	16.58	18.12	16.94	18.43	18.75	12.96	14.50	13.32	14.81	15.13
	3H	18.36	19.75	18.74	20.07	20.44	14.43	15.82	14.81	16.15	16.51
	4H	19.02	20.32	19.42	20.66	21.04	15.02	16.32	15.42	16.67	17.05
	6H	19.49	20.69	19.91	21.06	21.45	15.49	16.69	15.90	17.05	17.45
	8H	19.65	20.79	20.07	21.18	21.58	15.65	16.79	16.07	17.18	17.58
	12H	19.74	20.84	20.17	21.22	21.65	15.76	16.86	16.19	17.24	17.67
4H	2H	16.71	18.01	17.11	18.36	18.74	13.64	14.94	14.04	15.28	15.66
	3H	18.68	19.76	19.09	20.16	20.56	15.31	16.39	15.72	16.79	17.19
	4H	19.43	20.40	19.86	20.82	21.25	16.02	16.99	16.45	17.40	17.84
	6H	20.02	20.87	20.48	21.31	21.77	16.60	17.45	17.06	17.89	18.35
	8H	20.23	21.02	20.69	21.47	21.93	16.81	17.60	17.27	18.05	18.51
	12H	20.38	21.09	20.86	21.56	22.03	16.97	17.68	17.45	18.16	18.63
8H	4H	19.49	20.28	19.95	20.73	21.19	16.38	17.17	16.84	17.62	18.08
	6H	20.15	20.81	20.65	21.30	21.77	17.08	17.74	17.58	18.23	18.71
	8H	20.40	20.99	20.92	21.50	21.99	17.37	17.95	17.88	18.46	18.95
	12H	20.61	21.13	21.12	21.63	22.19	17.61	18.13	18.12	18.62	19.18
12H	4H	19.48	20.19	19.97	20.67	21.14	16.43	17.14	16.91	17.61	18.09
	6H	20.15	20.74	20.66	21.24	21.73	17.15	17.74	17.67	18.25	18.74
	8H	20.44	20.96	20.95	21.45	22.02	17.50	18.02	18.01	18.51	19.07