

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: P1056419

Luminaire Tested: S125R3DR-S375D840-X4F0-XX-UDD-F-S

Issue Date: 7/25/2025

Test Information

Test Method: LM-79-2024
Report Number: P1056419
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-S375D840-X4F0-XX-UDD-F-S
Description: DEFINE 5, SILVER 3-INCH REGRESSED DIRECT RECESSED HOUSING WITH FROSTED LENS
CORE LIGHT ENGINE
Light Source: 4000K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

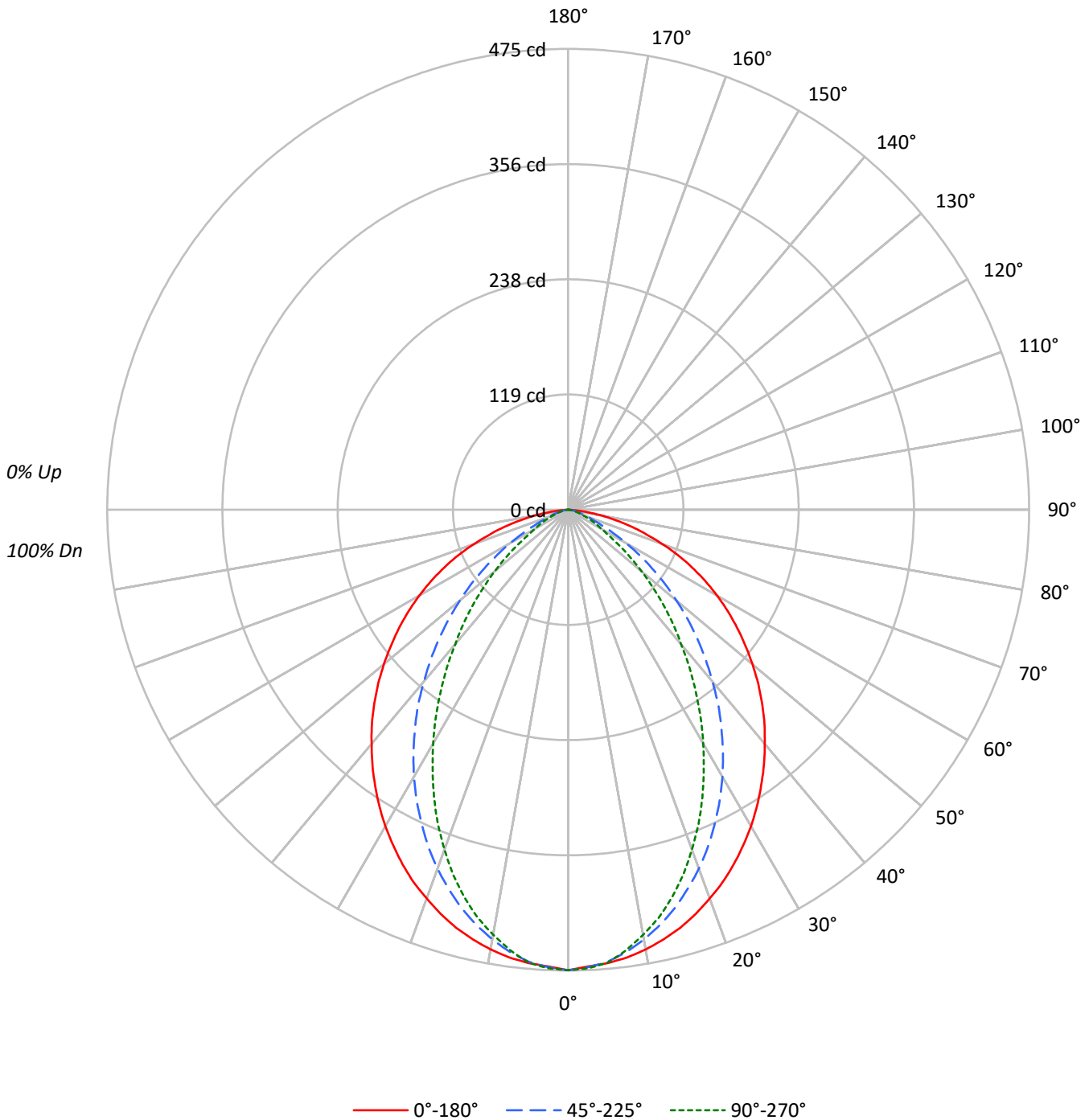
Lumens per Lamp: N/A
Luminaire Lumens: 858.0 lumens
Efficiency: N/A
Efficacy: 68.1 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 0.95 / 1.11
Luminous Opening: Rectangular (W 0.39' x L: 3.9' x H: 0')
CIE Type: Direct

Input Watts (W): 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	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°	3356	3356	3356
5°	3328	3319	3325
10°	3303	3228	3193
15°	3265	3110	3027
20°	3208	2963	2804
25°	3147	2788	2551
30°	3075	2594	2271
35°	2993	2375	1976
40°	2909	2134	1671
45°	2825	1881	1385
50°	2726	1600	1088
55°	2622	1300	791
60°	2504	970	566
65°	2354	639	442
70°	2127	444	308
75°	1849	287	240
80°	1449	216	195
85°	746	178	146

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 2825 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	44.2	5.2
10°-20°	120.2	14.0
20°-30°	166.2	19.4
30°-40°	176.1	20.5
40°-50°	153.7	17.9
50°-60°	109.3	12.7
60°-70°	60.8	7.1
70°-80°	23.4	2.7
80°-90°	4.1	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°	330.7	38.5
0°-40°	506.8	59.1
0°-60°	769.8	89.7
0°-90°	858.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	858.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	475	475	475	475	475	
5°	469	472	468	466	469	45
15°	446	442	425	416	414	126
25°	404	390	357	335	327	186
35°	347	323	275	242	229	217
45°	283	249	188	150	138	218
55°	213	170	106	73	64	190
65°	141	92	38	28	26	139
75°	68	26	10	9	9	72
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°	474.7	474.7	474.7	474.7	474.7
2.5°	471.2	476.0	472.1	472.5	473.0
5°	469.0	472.5	467.7	466.4	468.6
7.5°	465.5	468.1	459.8	456.7	458.0
10°	460.2	461.1	449.7	445.3	444.8
12.5°	453.6	452.3	438.2	431.2	430.8
15°	446.1	442.2	425.0	415.8	413.6
17.5°	436.9	430.8	409.7	397.8	394.3
20°	426.4	418.0	393.8	378.5	372.7
22.5°	415.8	404.4	376.3	356.9	350.8
25°	403.5	389.9	357.4	335.4	327.0
27.5°	390.3	374.1	338.0	312.5	302.4
30°	376.7	357.8	317.8	289.2	278.2
32.5°	362.2	340.7	296.7	265.5	254.1
35°	346.8	323.1	275.2	241.8	229.0
37.5°	331.4	305.0	254.1	218.5	205.3
40°	315.2	286.6	231.2	194.7	181.1
42.5°	299.3	267.7	209.7	172.3	160.0
45°	282.6	248.8	188.1	150.3	138.5
47.5°	265.5	229.0	166.6	129.7	117.8
50°	247.9	209.7	145.5	109.4	98.9
52.5°	230.3	190.3	125.7	90.1	80.9
55°	212.7	170.5	105.5	73.0	64.2
57.5°	195.2	151.2	86.6	57.1	49.2
60°	177.1	131.4	68.6	42.2	40.0
62.5°	159.1	112.1	53.2	34.7	33.0
65°	140.7	92.3	38.2	28.1	26.4
67.5°	122.2	74.3	27.7	21.5	20.2
70°	102.9	56.7	21.5	16.3	14.9
72.5°	84.4	40.9	15.4	11.9	11.4
75°	67.7	26.4	10.5	8.8	8.8
77.5°	51.0	15.8	7.5	6.6	6.6
80°	35.6	9.2	5.3	4.8	4.8
82.5°	21.5	4.8	3.5	3.1	3.1
85°	9.2	2.6	2.2	1.8	1.8
87.5°	1.8	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	15.37	16.81	15.73	17.13	17.44	8.00	9.45	8.37	9.76	10.07
	3H	16.93	18.21	17.31	18.54	18.91	8.56	9.85	8.94	10.18	10.54
	4H	17.45	18.65	17.85	19.00	19.38	8.69	9.89	9.09	10.24	10.62
	6H	17.79	18.89	18.20	19.26	19.65	8.75	9.86	9.17	10.23	10.62
	8H	17.87	18.92	18.30	19.31	19.71	8.76	9.81	9.19	10.20	10.60
	12H	17.89	18.90	18.32	19.28	19.71	8.75	9.76	9.18	10.14	10.57
4H	2H	15.26	16.47	15.67	16.82	17.20	8.57	9.77	8.97	10.12	10.50
	3H	16.93	17.92	17.34	18.32	18.72	9.24	10.23	9.65	10.63	11.03
	4H	17.48	18.36	17.91	18.78	19.22	9.40	10.28	9.83	10.70	11.14
	6H	17.87	18.64	18.33	19.08	19.54	9.51	10.27	9.97	10.72	11.18
	8H	17.98	18.69	18.44	19.14	19.61	9.52	10.23	9.99	10.68	11.15
	12H	18.02	18.66	18.51	19.14	19.61	9.52	10.16	10.01	10.64	11.11
8H	4H	17.38	18.10	17.85	18.54	19.01	9.67	10.38	10.13	10.83	11.29
	6H	17.77	18.36	18.27	18.85	19.33	9.80	10.38	10.30	10.88	11.36
	8H	17.88	18.40	18.40	18.91	19.40	9.83	10.35	10.35	10.87	11.36
	12H	17.94	18.40	18.45	18.90	19.47	9.85	10.32	10.36	10.81	11.38
12H	4H	17.35	17.98	17.83	18.46	18.93	9.68	10.32	10.17	10.80	11.27
	6H	17.72	18.24	18.24	18.76	19.25	9.81	10.34	10.33	10.85	11.34
	8H	17.85	18.31	18.36	18.80	19.37	9.87	10.33	10.38	10.83	11.40