

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: P1056420

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

Issue Date: 7/25/2025

Test Information

Test Method: LM-79-2024
Report Number: P1056420
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-S375D840-X4F0-XX-UDD-F-W
Description: DEFINE 5, WHITE 3-INCH REGRESSED DIRECT RECESSED HOUSING WITH FROSTED LENS
CORE LIGHT ENGINE
Light Source: 4000K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

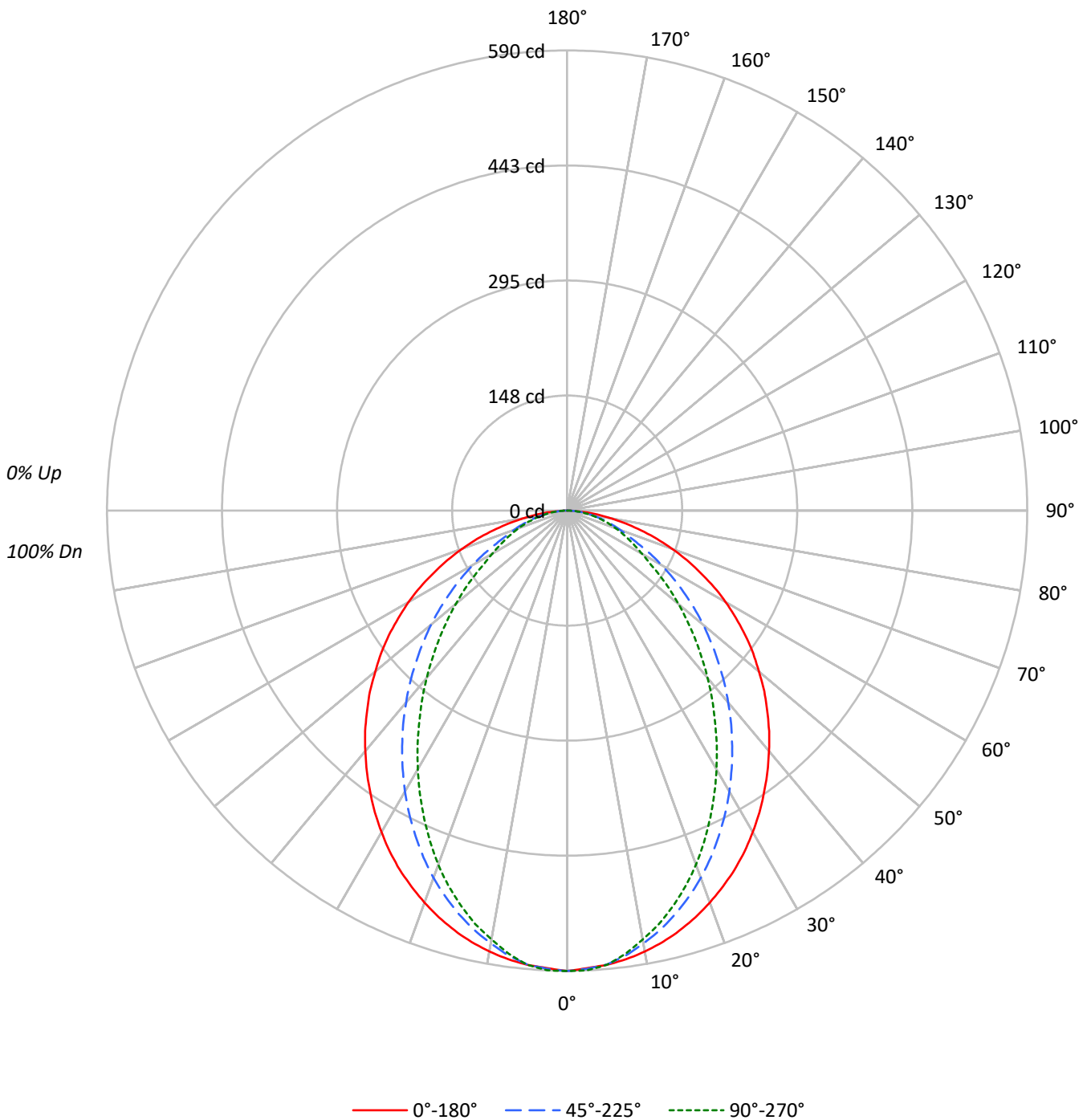
Lumens per Lamp: N/A
Luminaire Lumens: 1251.2 lumens
Efficiency: N/A
Efficacy: 99.3 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.01 / 1.17
Luminous Opening: Rectangular (W 0.39' x L: 3.9' x H: 0')
CIE Type: Direct

Input Watts (W): 12.6
Input Voltage (V): 120
Input Current (A_{in}): 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	30	42	35	30	41	35	30	40	34	30	28

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	4173	4173	4173
5°	4149	4146	4149
10°	4121	4045	4007
15°	4079	3921	3841
20°	4024	3770	3634
25°	3963	3590	3388
30°	3886	3394	3126
35°	3801	3183	2852
40°	3715	2965	2584
45°	3625	2737	2315
50°	3529	2504	2050
55°	3440	2248	1782
60°	3318	1977	1567
65°	3155	1676	1455
70°	2962	1499	1362
75°	2677	1379	1284
80°	2325	1254	1201
85°	1817	1103	1103

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 3625 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	55.2	4.4
10°-20°	151.7	12.1
20°-30°	214.2	17.1
30°-40°	235.8	18.8
40°-50°	220.0	17.6
50°-60°	175.6	14.0
60°-70°	118.2	9.4
70°-80°	62.9	5.0
80°-90°	17.5	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°	421.1	33.7
0°-40°	657.0	52.5
0°-60°	1052.5	84.1
0°-90°	1251.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1251.2	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	590	590	590	590	590	
5°	585	589	584	582	585	55
15°	557	554	536	527	525	157
25°	508	493	460	440	434	234
35°	440	414	369	340	330	276
45°	363	328	274	240	232	280
55°	279	237	182	153	145	249
65°	189	147	100	89	87	187
75°	98	65	50	48	47	104
85°	22	15	14	14	14	27
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	590.3	590.3	590.3	590.3	590.3
2.5°	587.2	592.1	588.1	589.0	589.9
5°	584.6	589.4	584.2	582.4	584.6
7.5°	580.2	584.2	575.4	571.4	573.2
10°	574.1	576.7	563.5	558.2	558.2
12.5°	566.6	566.6	550.8	543.3	543.3
15°	557.4	554.3	535.8	526.6	524.8
17.5°	546.8	541.1	519.1	507.2	505.0
20°	534.9	525.7	501.1	485.7	483.1
22.5°	521.7	509.9	481.3	462.4	459.3
25°	508.1	492.7	460.2	440.0	434.3
27.5°	492.7	474.3	438.7	415.8	408.8
30°	476.0	454.9	415.8	390.3	382.9
32.5°	458.9	435.2	392.5	365.3	356.9
35°	440.4	414.5	368.8	339.8	330.5
37.5°	422.0	393.8	345.5	315.2	305.5
40°	402.6	371.9	321.3	290.1	280.0
42.5°	383.3	350.3	297.6	265.9	255.4
45°	362.6	328.3	273.8	240.4	231.6
47.5°	342.9	305.9	250.5	218.0	208.3
50°	320.9	282.6	227.7	195.2	186.4
52.5°	300.7	259.8	204.8	174.5	165.3
55°	279.1	236.9	182.4	153.4	144.6
57.5°	256.7	214.1	160.9	133.6	125.3
60°	234.7	191.2	139.8	114.7	110.8
62.5°	212.3	169.7	120.0	100.7	98.0
65°	188.6	147.3	100.2	88.8	87.0
67.5°	166.2	125.7	84.4	77.8	76.0
70°	143.3	104.2	72.5	66.8	65.9
72.5°	120.9	83.5	61.1	57.1	56.3
75°	98.0	65.1	50.5	47.5	47.0
77.5°	76.9	48.8	40.0	38.7	37.8
80°	57.1	36.5	30.8	29.9	29.5
82.5°	39.1	25.1	22.0	22.0	21.1
85°	22.4	15.4	13.6	14.1	13.6
87.5°	8.4	6.6	6.2	6.6	6.6
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	16.25	17.79	16.62	18.11	18.42	12.63	14.17	13.00	14.49	14.80
	3H	18.04	19.42	18.42	19.75	20.11	14.11	15.49	14.49	15.82	16.18
	4H	18.69	19.99	19.09	20.34	20.72	14.70	16.00	15.10	16.35	16.72
	6H	19.17	20.37	19.58	20.73	21.13	15.16	16.36	15.57	16.73	17.12
	8H	19.32	20.47	19.75	20.85	21.26	15.32	16.47	15.75	16.86	17.26
	12H	19.42	20.51	19.85	20.89	21.32	15.44	16.53	15.87	16.92	17.34
4H	2H	16.39	17.69	16.79	18.03	18.41	13.31	14.61	13.71	14.96	15.34
	3H	18.36	19.44	18.77	19.84	20.24	14.99	16.07	15.40	16.47	16.87
	4H	19.10	20.08	19.54	20.49	20.93	15.69	16.66	16.12	17.08	17.52
	6H	19.70	20.54	20.15	20.99	21.45	16.28	17.13	16.73	17.57	18.03
	8H	19.90	20.70	20.37	21.14	21.61	16.49	17.28	16.95	17.72	18.19
	12H	20.05	20.76	20.53	21.24	21.71	16.65	17.36	17.13	17.83	18.30
8H	4H	19.17	19.96	19.63	20.40	20.87	16.05	16.85	16.52	17.29	17.76
	6H	19.83	20.48	20.32	20.97	21.45	16.76	17.41	17.25	17.90	18.38
	8H	20.08	20.67	20.59	21.18	21.67	17.04	17.63	17.55	18.14	18.63
	12H	20.29	20.81	20.80	21.30	21.86	17.28	17.80	17.79	18.30	18.86
12H	4H	19.16	19.87	19.64	20.35	20.82	16.10	16.81	16.58	17.29	17.76
	6H	19.82	20.41	20.33	20.92	21.41	16.83	17.42	17.34	17.93	18.42
	8H	20.11	20.64	20.62	21.13	21.69	17.17	17.69	17.68	18.19	18.75