

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: P1056576

Luminaire Tested: S125R3DR-H610D830-X4F0-XX-UDD-F-W

Issue Date: 7/25/2025

Test Information

Test Method: LM-79-2024
Report Number: P1056576
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-H610D830-X4F0-XX-UDD-F-W
Description: DEFINE 5, WHITE 3-INCH REGRESSED DIRECT RECESSED HOUSING WITH FROSTED LENS
HIGH PERFORMANCE LIGHT ENGINE
Light Source: 3000K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

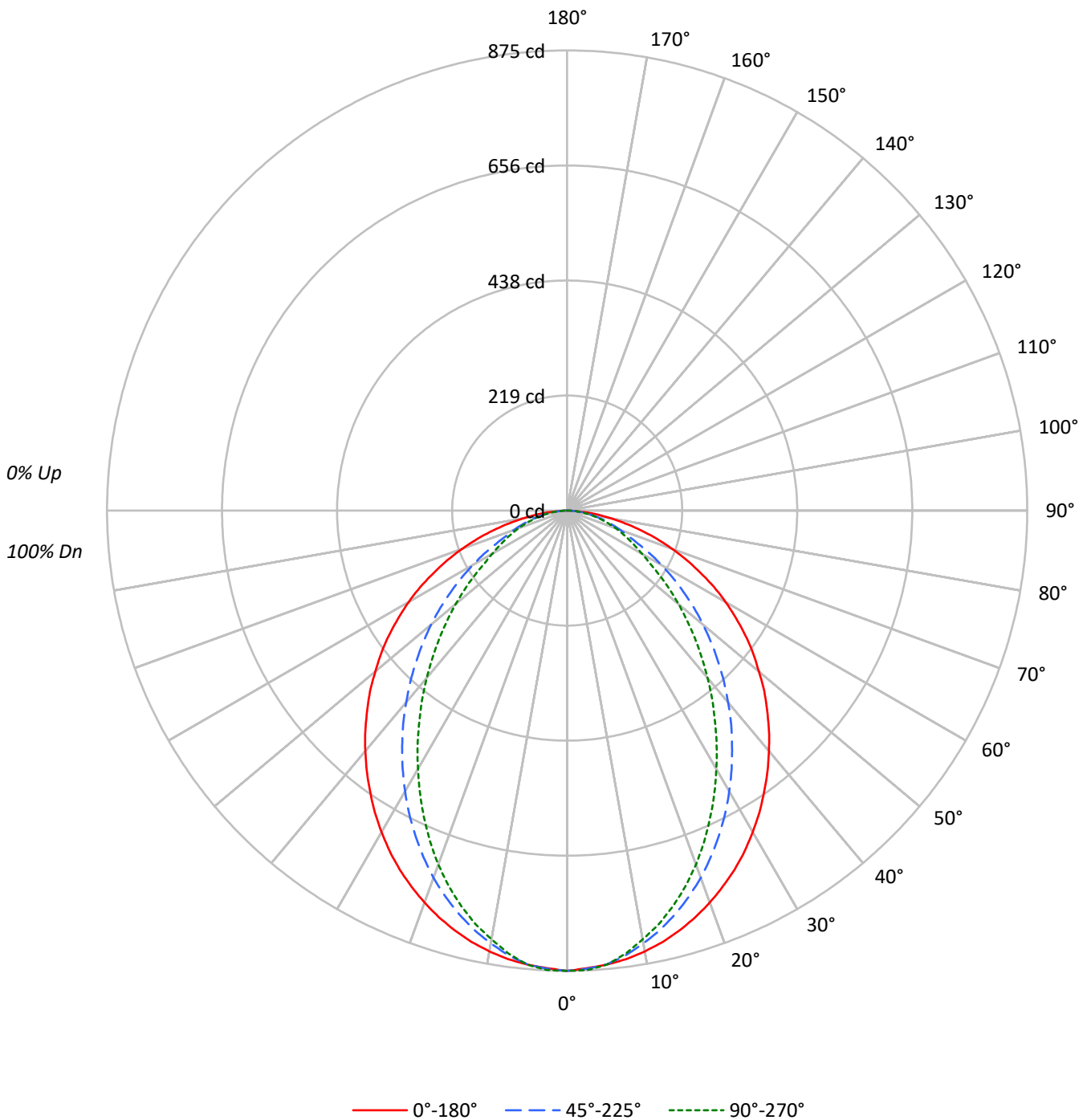
Lumens per Lamp: N/A
Luminaire Lumens: 1855.1 lumens
Efficiency: N/A
Efficacy: 107.2 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.01 / 1.17
Luminous Opening: Rectangular (W 0.39' x L: 3.9' x H: 0')
CIE Type: Direct

Input Watts (W): 17.3
Input Voltage (V): 120
Input Current (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	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°	6188	6188	6188
5°	6151	6146	6151
10°	6110	5998	5942
15°	6048	5814	5695
20°	5967	5590	5388
25°	5877	5323	5023
30°	5761	5032	4633
35°	5635	4719	4230
40°	5509	4396	3831
45°	5376	4059	3434
50°	5233	3713	3039
55°	5100	3334	2642
60°	4920	2930	2322
65°	4677	2486	2158
70°	4392	2222	2021
75°	3969	2046	1904
80°	3448	1856	1779
85°	2693	1638	1638

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 5376 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	81.9	4.4
10°-20°	224.9	12.1
20°-30°	317.6	17.1
30°-40°	349.7	18.8
40°-50°	326.2	17.6
50°-60°	260.4	14.0
60°-70°	175.2	9.4
70°-80°	93.3	5.0
80°-90°	25.9	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°	624.4	33.7
0°-40°	974.1	52.5
0°-60°	1560.6	84.1
0°-90°	1855.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1855.1	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	875	875	875	875	875	
5°	867	874	866	864	867	82
15°	826	822	794	781	778	233
25°	753	731	682	652	644	347
35°	653	615	547	504	490	409
45°	538	487	406	356	344	415
55°	414	351	270	228	214	369
65°	280	218	149	132	129	277
75°	145	96	75	70	70	155
85°	33	23	20	21	20	40
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	875.3	875.3	875.3	875.3	875.3
2.5°	870.7	877.9	872.0	873.3	874.6
5°	866.8	874.0	866.1	863.5	866.8
7.5°	860.3	866.1	853.1	847.2	849.8
10°	851.1	855.1	835.5	827.7	827.7
12.5°	840.1	840.1	816.6	805.5	805.5
15°	826.4	821.8	794.4	780.8	778.2
17.5°	810.7	802.3	769.7	752.1	748.8
20°	793.1	779.5	743.0	720.2	716.2
22.5°	773.6	756.0	713.6	685.6	681.0
25°	753.4	730.6	682.4	652.4	643.9
27.5°	730.6	703.2	650.4	616.5	606.1
30°	705.8	674.5	616.5	578.7	567.6
32.5°	680.4	645.2	582.0	541.6	529.2
35°	653.0	614.6	546.8	503.8	490.1
37.5°	625.7	583.9	512.3	467.3	452.9
40°	597.0	551.4	476.4	430.1	415.1
42.5°	568.3	519.4	441.2	394.3	378.7
45°	537.7	486.8	406.0	356.5	343.5
47.5°	508.3	453.6	371.5	323.3	308.9
50°	475.8	419.1	337.6	289.4	276.3
52.5°	445.8	385.2	303.7	258.7	245.0
55°	413.8	351.3	270.5	227.5	214.4
57.5°	380.6	317.4	238.5	198.1	185.7
60°	348.0	283.5	207.2	170.1	164.2
62.5°	314.8	251.6	177.9	149.2	145.3
65°	279.6	218.3	148.6	131.6	129.0
67.5°	246.4	186.4	125.1	115.4	112.7
70°	212.5	154.5	107.5	99.1	97.8
72.5°	179.2	123.8	90.6	84.7	83.4
75°	145.3	96.5	74.9	70.4	69.7
77.5°	114.1	72.3	59.3	57.4	56.0
80°	84.7	54.1	45.6	44.3	43.7
82.5°	58.0	37.1	32.6	32.6	31.3
85°	33.2	22.8	20.2	20.9	20.2
87.5°	12.4	9.8	9.1	9.8	9.8
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	17.62	19.16	17.99	19.47	19.79	14.00	15.54	14.37	15.86	16.17
	3H	19.41	20.79	19.78	21.12	21.48	15.48	16.86	15.86	17.19	17.55
	4H	20.06	21.36	20.46	21.71	22.08	16.07	17.37	16.47	17.72	18.09
	6H	20.54	21.74	20.95	22.10	22.49	16.53	17.73	16.94	18.10	18.49
	8H	20.69	21.83	21.12	22.22	22.62	16.69	17.84	17.12	18.23	18.63
	12H	20.79	21.88	21.22	22.26	22.69	16.81	17.90	17.24	18.28	18.71
4H	2H	17.76	19.05	18.15	19.40	19.78	14.68	15.98	15.08	16.33	16.70
	3H	19.73	20.81	20.14	21.21	21.61	16.36	17.44	16.77	17.84	18.24
	4H	20.47	21.44	20.90	21.86	22.30	17.06	18.03	17.49	18.45	18.89
	6H	21.07	21.91	21.52	22.36	22.81	17.65	18.49	18.10	18.94	19.39
	8H	21.27	22.06	21.73	22.51	22.97	17.85	18.65	18.32	19.09	19.56
	12H	21.42	22.13	21.90	22.61	23.08	18.02	18.72	18.50	19.20	19.67
8H	4H	20.53	21.33	21.00	21.77	22.24	17.42	18.22	17.89	18.66	19.13
	6H	21.19	21.85	21.69	22.34	22.82	18.13	18.78	18.62	19.27	19.75
	8H	21.45	22.04	21.96	22.55	23.03	18.41	19.00	18.92	19.51	20.00
	12H	21.66	22.18	22.16	22.67	23.23	18.65	19.17	19.16	19.66	20.23
12H	4H	20.53	21.24	21.01	21.71	22.18	17.47	18.18	17.95	18.66	19.13
	6H	21.19	21.78	21.70	22.29	22.77	18.20	18.79	18.71	19.30	19.78
	8H	21.48	22.00	21.99	22.49	23.06	18.54	19.06	19.05	19.55	20.12