

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: P1056418

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

Issue Date: 7/25/2025

Test Information

Test Method: LM-79-2024
Report Number: P1056418
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-S375D840-X4F0-XX-UDD-F-B
Description: DEFINE 5, BLACK 3-INCH REGRESSED DIRECT RECESSED HOUSING WITH FROSTED LENS
CORE LIGHT ENGINE
Light Source: 4000K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

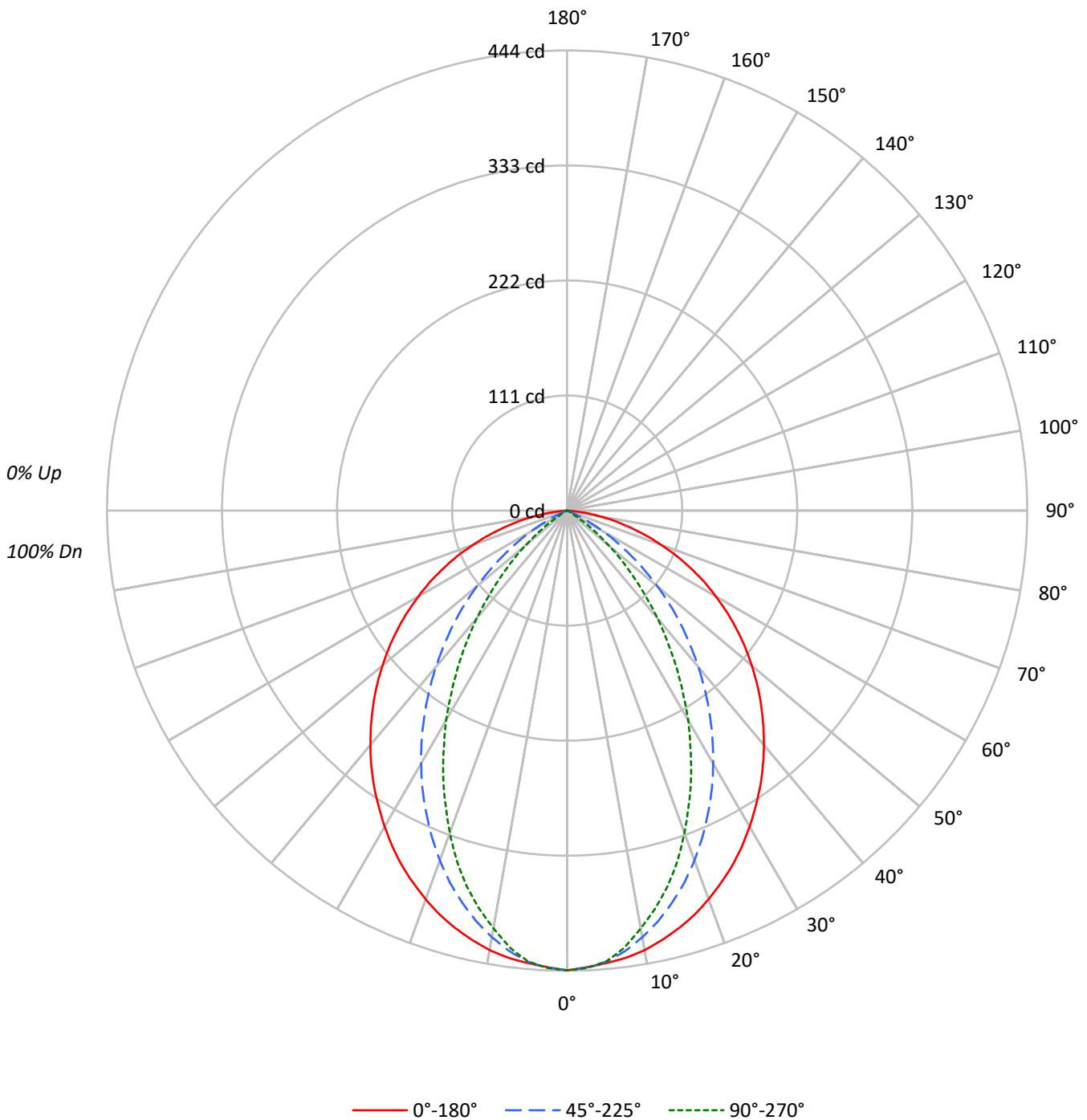
Lumens per Lamp: N/A
Luminaire Lumens: 718.8 lumens
Efficiency: N/A
Efficacy: 57.1 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 0.89 / 1.07
Luminous Opening: Rectangular (W 0.39' x L: 3.9' x H: 0')
CIE Type: Direct

Input Watts (W): 12.6
Input Voltage (V): 120
Input Current (A_{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	111	108	104	101	109	106	103	100	101	99	97	98	96	94	94	93	91	89
2	103	97	91	87	101	95	90	86	92	88	84	89	85	82	86	83	80	78
3	96	87	81	75	94	86	80	75	83	78	74	80	76	72	78	74	71	69
4	89	79	72	66	87	78	71	66	76	70	65	73	68	64	71	67	63	61
5	83	72	64	59	81	71	64	58	69	63	58	67	62	57	65	61	57	55
6	77	66	58	53	76	65	58	52	63	57	52	62	56	52	60	55	51	49
7	72	61	53	47	71	60	52	47	58	52	47	57	51	47	56	50	46	45
8	68	56	48	43	66	55	48	43	54	47	43	53	47	43	52	46	42	41
9	64	52	44	39	62	51	44	39	50	44	39	49	43	39	48	43	39	37
10	60	48	41	36	59	48	41	36	47	40	36	46	40	36	45	40	36	34

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	3135	3135	3135
5°	3110	3100	3098
10°	3092	3001	2937
15°	3053	2866	2744
20°	3002	2702	2490
25°	2945	2510	2208
30°	2874	2300	1909
35°	2803	2068	1578
40°	2726	1817	1250
45°	2645	1552	905
50°	2557	1252	585
55°	2460	916	260
60°	2343	566	75
65°	2198	206	43
70°	1990	72	19
75°	1729	25	11
80°	1323	16	0
85°	608	0	0

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 2645 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	41.2	5.7
10°-20°	110.6	15.4
20°-30°	149.6	20.8
30°-40°	153.7	21.4
40°-50°	127.4	17.7
50°-60°	81.8	11.4
60°-70°	39.5	5.5
70°-80°	13.3	1.9
80°-90°	1.7	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°	301.4	41.9
0°-40°	455.2	63.3
0°-60°	664.3	92.4
0°-90°	718.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	718.8	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	444	444	444	444	444	
5°	438	442	437	434	436	42
15°	417	412	392	378	375	118
25°	378	359	322	293	283	174
35°	325	294	240	198	183	203
45°	265	221	155	107	90	204
55°	200	146	74	32	21	178
65°	131	72	12	4	3	130
75°	63	14	1	0	0	67
85°	8	0	0	0	0	12
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	443.5	443.5	443.5	443.5	443.5
2.5°	440.9	444.4	441.3	440.9	441.8
5°	438.2	441.8	436.9	434.3	436.5
7.5°	435.2	436.9	428.6	424.2	425.0
10°	430.8	430.3	418.0	410.5	409.2
12.5°	424.2	422.0	405.7	395.2	393.0
15°	417.1	411.9	391.6	378.0	374.9
17.5°	408.8	400.4	376.3	358.7	354.3
20°	399.1	387.7	359.1	337.6	331.0
22.5°	388.6	374.1	341.1	315.6	306.8
25°	377.6	359.1	321.8	292.7	283.1
27.5°	365.3	343.7	302.4	269.4	257.6
30°	352.1	327.5	281.8	245.7	233.8
32.5°	338.5	311.2	261.1	222.0	207.5
35°	324.8	293.6	239.6	197.8	182.9
37.5°	310.3	276.0	218.5	174.9	158.7
40°	295.4	258.0	196.9	151.2	135.4
42.5°	280.0	239.6	175.4	128.8	112.5
45°	264.6	221.1	155.2	107.3	90.5
47.5°	248.8	202.2	134.1	86.2	71.6
50°	232.5	183.7	113.8	67.3	53.2
52.5°	216.3	164.8	93.2	48.8	36.0
55°	199.6	146.4	74.3	32.5	21.1
57.5°	182.9	127.5	56.7	18.0	7.9
60°	165.7	109.4	40.0	6.2	5.3
62.5°	149.0	90.1	25.1	4.8	4.0
65°	131.4	72.5	12.3	3.5	2.6
67.5°	114.3	55.8	5.3	2.2	1.3
70°	96.3	40.4	3.5	1.3	0.9
72.5°	79.6	25.9	2.2	0.9	0.4
75°	63.3	13.6	0.9	0.4	0.4
77.5°	47.5	5.7	0.4	0.4	0.4
80°	32.5	2.6	0.4	0.4	0.0
82.5°	19.3	0.9	0.4	0.4	0.0
85°	7.5	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	15.04	16.42	15.40	16.74	17.05	0.00	1.28	0.26	1.59	1.91
	3H	16.59	17.82	16.97	18.15	18.51	0.00	1.05	0.20	1.38	1.74
	4H	17.11	18.26	17.51	18.61	18.99	0.00	0.90	0.15	1.25	1.63
	6H	17.45	18.50	17.86	18.87	19.27	0.00	0.73	0.09	1.10	1.49
	8H	17.53	18.53	17.96	18.92	19.32	0.00	0.64	0.07	1.03	1.43
	12H	17.55	18.50	17.98	18.88	19.31	0.00	0.55	0.03	0.93	1.36
4H	2H	14.84	15.99	15.25	16.34	16.72	0.76	1.91	1.16	2.26	2.64
	3H	16.46	17.39	16.87	17.79	18.20	0.71	1.64	1.12	2.05	2.45
	4H	16.98	17.81	17.41	18.23	18.67	0.63	1.47	1.07	1.88	2.33
	6H	17.35	18.07	17.82	18.52	18.98	0.57	1.28	1.03	1.73	2.19
	8H	17.45	18.12	17.92	18.57	19.04	0.51	1.18	0.98	1.63	2.10
	12H	17.49	18.08	17.97	18.56	19.04	0.47	1.06	0.96	1.55	2.02
8H	4H	16.85	17.52	17.32	17.97	18.44	1.65	2.32	2.12	2.77	3.24
	6H	17.21	17.75	17.71	18.25	18.73	1.57	2.12	2.07	2.61	3.09
	8H	17.30	17.79	17.82	18.31	18.80	1.51	2.01	2.03	2.52	3.01
	12H	17.34	17.78	17.86	18.27	18.84	1.47	1.91	1.99	2.40	2.97
12H	4H	16.81	17.40	17.29	17.88	18.36	1.73	2.32	2.22	2.81	3.28
	6H	17.15	17.64	17.67	18.15	18.64	1.63	2.12	2.15	2.64	3.13
	8H	17.26	17.69	17.77	18.19	18.76	1.60	2.03	2.11	2.53	3.10