

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: P1439838

Luminaire Tested: S123DR-S675D935-X4F0-XX-UDD-FLB-W

Issue Date: 4/2/2026

**Test Information**

Test Method: LM-79-2024  
Report Number: P1439838  
TEST IS SCALED FROM IESNA LM-79-24 TEST DATA (G3-2603-719-3)  
Test Lab: INNOVATION CENTER  
Issue Date: 4/2/2026  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: NEO-RAY  
Catalog Number: S123DR-S675D935-X4F0-XX-UDD-FLB-W  
Description: DEFINE 3, DIRECT RECESSED WITH BATWING FLUSH OPTIC  
CORE LIGHT ENGINE  
Light Source: 3500K CCT, 90 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

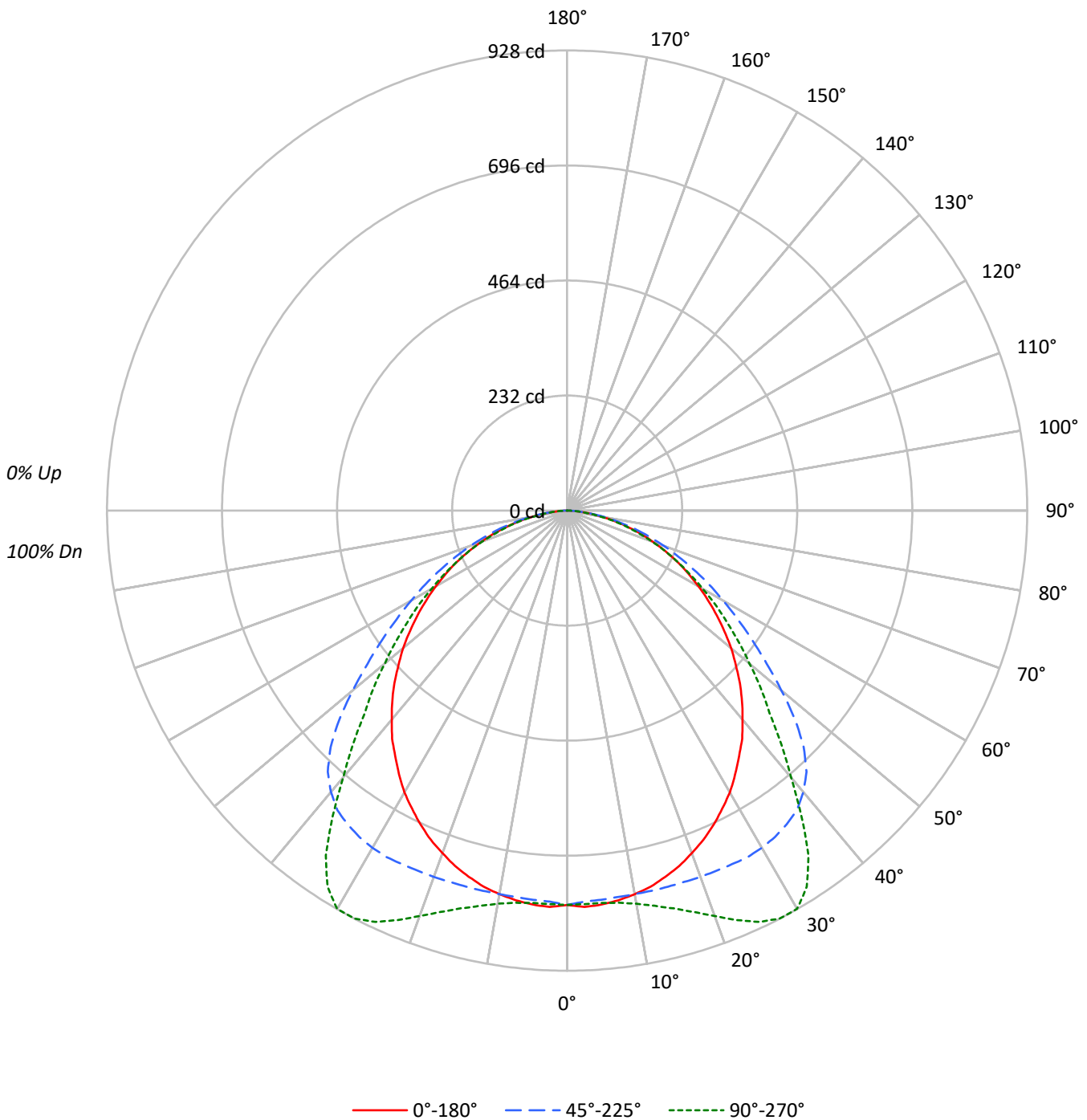
Lumens per Lamp: N/A  
Luminaire Lumens: 2405.0 lumens  
Efficiency: N/A  
Efficacy: 91.1 lumens/watt  
Spacing Criteria (0/90/45): 1.22 / 1.52 / 1.52  
Luminous Opening: Rectangular (W 0.23' x L: 3.9' x H: 0')  
CIE Type: Direct

Input Watts (W): 26.4  
Input Voltage (V): 120  
Input Current (A<sub>in</sub>): 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	109	105	100	97	106	102	99	95	98	95	92	94	92	89	91	89	87	85					85			
2	100	92	85	79	97	90	84	78	86	81	77	83	79	75	80	76	73	71					71			
3	91	81	73	66	88	79	72	66	76	70	65	73	68	63	71	66	62	60					60			
4	83	72	63	56	81	70	62	56	68	61	55	65	59	54	63	58	54	52					52			
5	77	64	55	49	75	63	54	48	61	53	48	59	52	47	57	51	47	45					45			
6	71	58	49	42	69	57	48	42	55	47	42	53	47	41	52	46	41	39					39			
7	66	52	43	37	64	51	43	37	50	42	37	48	42	37	47	41	36	34					34			
8	61	48	39	33	59	47	39	33	46	38	33	44	38	33	43	37	33	31					31			
9	57	44	35	30	56	43	35	30	42	35	30	41	34	30	40	34	29	28					28			
10	53	40	32	27	52	40	32	27	39	32	27	38	31	27	37	31	27	25					25			

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

	0°	45°	90°
0°	9587	9587	9587
5°	9653	9534	9613
10°	9614	9614	9855
15°	9545	9802	10366
20°	9431	10086	11162
25°	9297	10468	12175
30°	9135	10933	12912
35°	8896	11364	12490
40°	8658	11661	11052
45°	8397	11497	9841
50°	8097	10581	9007
55°	7744	9574	8280
60°	7376	8765	7615
65°	7015	8022	7038
70°	6493	7276	6377
75°	5860	6475	5706
80°	4909	5422	4680
85°	3749	3984	3527

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 45°  
 Vertical Angle: 45°  
 Luminance: 11497 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	75.7	3.1
10°-20°	225.0	9.4
20°-30°	368.7	15.3
30°-40°	466.4	19.4
40°-50°	455.7	18.9
50°-60°	374.4	15.6
60°-70°	264.1	11.0
70°-80°	140.7	5.9
80°-90°	34.3	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°	669.4	27.8
0°-40°	1135.8	47.2
0°-60°	1965.9	81.7
0°-90°	2405.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2405.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	795	795	795	795	795	
5°	798	794	788	796	794	76
15°	765	769	785	821	830	216
25°	699	720	787	882	915	322
35°	604	646	772	862	849	378
45°	492	548	674	608	577	380
55°	368	424	456	410	394	330
65°	246	281	281	257	247	243
75°	126	141	139	126	122	134
85°	27	30	29	26	26	33
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	795.2	795.2	795.2	795.2	795.2
2.5°	800.1	797.6	789.4	796.8	794.3
5°	797.6	794.3	787.8	796.0	794.3
7.5°	792.7	791.0	786.1	798.4	797.6
10°	785.3	784.5	785.3	803.4	805.0
12.5°	777.1	777.9	785.3	810.8	816.5
15°	764.7	768.8	785.3	820.6	830.5
17.5°	751.6	758.1	785.3	833.8	848.6
20°	735.1	746.6	786.1	847.8	870.0
22.5°	718.7	732.7	786.1	866.7	893.8
25°	698.9	719.5	786.9	882.3	915.2
27.5°	677.6	702.2	787.8	894.6	927.5
30°	656.2	685.8	785.3	899.6	927.5
32.5°	630.7	666.9	780.3	891.4	899.6
35°	604.4	646.3	772.1	861.8	848.6
37.5°	579.7	624.1	761.4	807.5	776.2
40°	550.1	600.3	740.9	738.4	702.2
42.5°	522.2	574.8	714.6	668.5	638.9
45°	492.5	548.5	674.3	608.5	577.2
47.5°	461.3	519.7	623.3	551.8	529.6
50°	431.7	490.1	564.1	500.0	480.2
52.5°	399.6	458.8	507.4	453.9	436.6
55°	368.4	423.5	455.5	409.5	393.9
57.5°	337.1	388.9	407.9	367.6	355.2
60°	305.9	352.8	363.5	328.9	315.8
62.5°	275.5	319.0	322.3	291.9	280.4
65°	245.9	281.2	281.2	256.6	246.7
67.5°	214.6	245.0	243.4	220.4	214.6
70°	184.2	209.7	206.4	187.5	180.9
72.5°	155.4	174.3	171.9	157.1	149.7
75°	125.8	141.4	139.0	125.8	122.5
77.5°	97.9	108.5	106.1	97.0	94.6
80°	70.7	78.9	78.1	71.5	67.4
82.5°	47.7	51.8	51.0	46.9	44.4
85°	27.1	29.6	28.8	26.3	25.5
87.5°	10.7	12.3	13.2	12.3	11.5
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	19.49	21.10	19.86	21.41	21.72	19.22	20.82	19.58	21.14	21.45
	3H	21.06	22.51	21.44	22.83	23.19	20.73	22.18	21.11	22.51	22.87
	4H	21.61	22.97	22.01	23.32	23.70	21.27	22.63	21.67	22.98	23.35
	6H	21.98	23.24	22.39	23.60	23.99	21.63	22.89	22.04	23.25	23.64
	8H	22.08	23.28	22.50	23.67	24.07	21.72	22.92	22.15	23.31	23.71
	12H	22.13	23.28	22.56	23.66	24.09	21.77	22.92	22.20	23.30	23.73
4H	2H	20.13	21.49	20.53	21.84	22.21	19.92	21.28	20.32	21.63	22.00
	3H	21.94	23.07	22.35	23.47	23.87	21.63	22.77	22.04	23.17	23.57
	4H	22.63	23.65	23.06	24.06	24.50	22.27	23.29	22.70	23.71	24.14
	6H	23.11	24.00	23.56	24.44	24.90	22.73	23.62	23.18	24.06	24.52
	8H	23.24	24.07	23.70	24.52	24.98	22.86	23.69	23.32	24.13	24.60
	12H	23.32	24.07	23.81	24.55	25.02	22.94	23.69	23.42	24.16	24.63
8H	4H	22.89	23.72	23.35	24.17	24.63	22.58	23.41	23.04	23.86	24.32
	6H	23.48	24.17	23.98	24.66	25.14	23.14	23.83	23.63	24.32	24.79
	8H	23.67	24.30	24.19	24.80	25.29	23.32	23.94	23.83	24.45	24.93
	12H	23.82	24.37	24.32	24.86	25.42	23.45	24.00	23.95	24.49	25.05
12H	4H	22.91	23.66	23.39	24.13	24.60	22.60	23.35	23.08	23.83	24.30
	6H	23.51	24.14	24.02	24.64	25.13	23.18	23.80	23.69	24.31	24.80
	8H	23.76	24.31	24.26	24.80	25.36	23.41	23.96	23.92	24.45	25.01