

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: P242768

Luminaire Tested: S125DRP-S850D927-X4F0-XX-UDD-F-W

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-2024
Report Number: P242768
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1802-639-12)
Test Lab: INNOVATION CENTER
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S125DRP-S850D927-X4F0-XX-UDD-F-W
Description: DEFINE 5 DIRECT RECESSED WITH SATIN FLUSH DIFFUSER
STANDARD LIGHT ENGINE
Light Source: (92) 2700K CCT, 90 CRI LEDS
Ballast/Driver: -

Summary

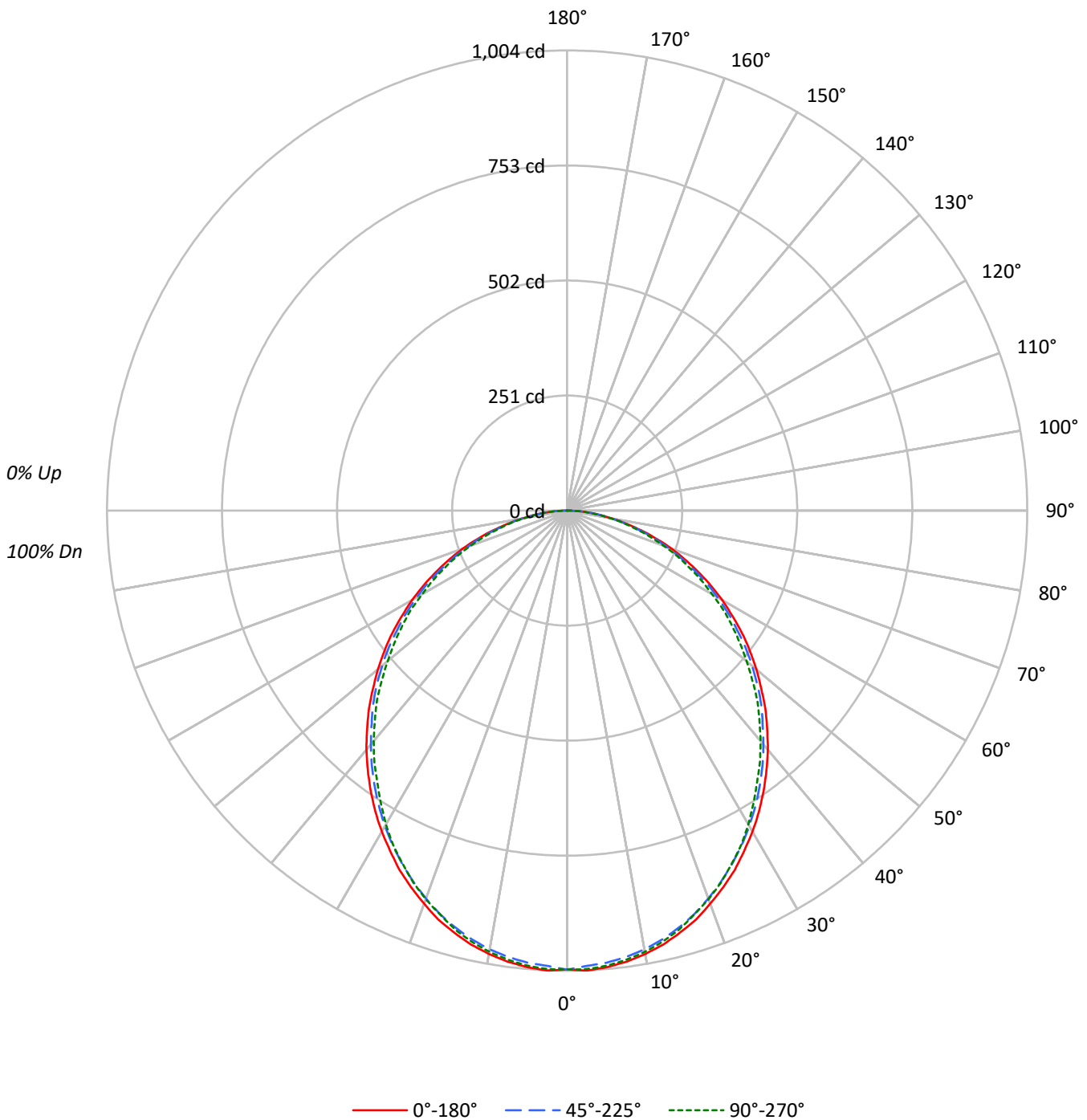
Lumens per Lamp: N/A
Luminaire Lumens: 2606.2 lumens
Efficiency: N/A
Efficacy: 98.7 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.18 / 1.3
Luminous Opening: Rectangular (W 0.39' x L: 3.88' x H: 0')
CIE Type: Direct

Input Watts (W): 26.4
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	109	104	100	96	106	102	98	95	98	94	92	94	91	89	90	88	86	84
2	99	91	84	79	97	89	83	78	86	80	76	82	78	74	79	76	72	70
3	91	80	72	66	88	79	71	65	76	69	64	73	67	63	70	66	62	59
4	83	71	62	56	81	70	62	55	67	60	55	65	59	54	63	58	53	51
5	76	64	55	48	74	63	54	48	60	53	47	58	52	47	57	51	46	44
6	71	57	49	42	69	56	48	42	55	47	42	53	46	41	51	46	41	39
7	66	52	43	37	64	51	43	37	50	42	37	48	42	37	47	41	36	34
8	61	48	39	33	60	47	39	33	46	38	33	44	38	33	43	37	33	31
9	57	44	36	30	56	43	35	30	42	35	30	41	34	30	40	34	30	28
10	54	40	33	27	52	40	32	27	39	32	27	38	32	27	37	31	27	25

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	7117	7117	7117
5°	7132	7065	7110
10°	7089	7015	7055
15°	7012	6931	6960
20°	6902	6812	6825
25°	6784	6672	6666
30°	6638	6521	6488
35°	6481	6358	6269
40°	6321	6181	6093
45°	6147	6020	5900
50°	5956	5825	5650
55°	5772	5605	5448
60°	5551	5383	5191
65°	5289	5116	4943
70°	5037	4807	4642
75°	4591	4438	4287
80°	4085	4019	3925
85°	3555	3621	3425

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 6147 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	94.5	3.6
10°-20°	266.9	10.2
20°-30°	394.0	15.1
30°-40°	459.7	17.6
40°-50°	461.7	17.7
50°-60°	405.3	15.6
60°-70°	301.9	11.6
70°-80°	172.4	6.6
80°-90°	49.8	1.9
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°	755.4	29.0
0°-40°	1215.1	46.6
0°-60°	2082.1	79.9
0°-90°	2606.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2606.2	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1001	1001	1001	1001	1001	
5°	1000	998	990	997	997	95
15°	953	951	942	946	946	269
25°	865	861	851	852	850	398
35°	747	744	733	729	722	467
45°	612	608	599	589	587	471
55°	466	463	452	445	440	416
65°	314	313	304	297	294	312
75°	167	166	162	159	156	178
85°	44	44	44	44	42	51
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1001.3	1001.3	1001.3	1001.3	1001.3
2.5°	1004.5	1002.1	994.2	1002.1	1001.3
5°	999.7	998.1	990.2	997.4	996.6
7.5°	992.6	991.0	982.3	989.4	988.6
10°	982.3	980.7	972.0	978.3	977.6
12.5°	969.6	966.5	958.5	963.3	963.3
15°	953.0	950.6	941.9	945.9	945.9
17.5°	935.6	931.6	922.9	927.6	923.7
20°	912.6	911.0	900.7	906.3	902.3
22.5°	889.6	886.5	876.9	880.1	877.7
25°	865.1	861.1	850.8	852.4	850.0
27.5°	836.5	834.2	823.9	824.7	822.3
30°	808.8	806.4	794.6	793.0	790.6
32.5°	778.7	774.8	764.5	761.3	756.5
35°	747.0	743.9	732.8	728.8	722.5
37.5°	714.5	710.6	700.3	694.7	690.8
40°	681.3	677.3	666.2	659.1	656.7
42.5°	645.6	642.5	631.4	625.0	621.1
45°	611.6	608.4	598.9	589.4	587.0
47.5°	574.3	575.1	563.2	553.7	548.2
50°	538.7	536.3	526.8	516.5	511.0
52.5°	502.2	500.7	490.4	481.6	475.3
55°	465.8	463.4	452.3	445.2	439.7
57.5°	427.0	426.2	416.7	407.2	404.8
60°	390.5	387.4	378.7	370.7	365.2
62.5°	352.5	350.1	343.0	334.3	330.3
65°	314.5	312.9	304.2	297.1	293.9
67.5°	277.3	274.1	267.8	261.4	259.8
70°	242.4	238.4	231.3	226.6	223.4
72.5°	204.4	202.0	198.0	192.5	189.3
75°	167.2	165.6	161.6	159.2	156.1
77.5°	132.3	131.5	129.1	127.5	125.2
80°	99.8	99.8	98.2	97.4	95.9
82.5°	71.3	69.7	69.7	68.1	68.1
85°	43.6	44.4	44.4	43.6	42.0
87.5°	21.4	21.4	20.6	20.6	19.0
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	18.17	19.79	18.53	20.10	20.41	17.84	19.46	18.21	19.77	20.09
	3H	19.94	21.40	20.31	21.73	22.09	19.57	21.03	19.95	21.36	21.72
	4H	20.59	21.97	20.99	22.32	22.70	20.22	21.60	20.62	21.94	22.32
	6H	21.07	22.35	21.48	22.71	23.10	20.70	21.98	21.12	22.35	22.74
	8H	21.23	22.45	21.65	22.84	23.23	20.87	22.08	21.29	22.47	22.87
	12H	21.33	22.50	21.76	22.88	23.31	20.98	22.14	21.41	22.53	22.95
4H	2H	18.75	20.12	19.14	20.47	20.85	18.49	19.86	18.88	20.21	20.59
	3H	20.74	21.90	21.15	22.29	22.69	20.44	21.59	20.85	21.99	22.39
	4H	21.53	22.57	21.96	22.99	23.42	21.21	22.26	21.64	22.67	23.11
	6H	22.14	23.05	22.59	23.49	23.94	21.83	22.74	22.28	23.18	23.64
	8H	22.34	23.19	22.80	23.64	24.10	22.04	22.89	22.50	23.33	23.80
	12H	22.49	23.26	22.97	23.74	24.21	22.19	22.96	22.67	23.44	23.90
8H	4H	21.81	22.67	22.27	23.11	23.58	21.54	22.39	22.00	22.83	23.30
	6H	22.54	23.25	23.04	23.74	24.22	22.28	22.99	22.77	23.47	23.95
	8H	22.82	23.46	23.33	23.97	24.45	22.56	23.20	23.07	23.70	24.19
	12H	23.05	23.62	23.56	24.11	24.67	22.79	23.36	23.30	23.85	24.41
12H	4H	21.84	22.61	22.32	23.09	23.56	21.57	22.34	22.05	22.82	23.28
	6H	22.60	23.23	23.10	23.74	24.23	22.34	22.98	22.85	23.48	23.97
	8H	22.93	23.50	23.44	23.99	24.55	22.68	23.24	23.19	23.73	24.29