

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: P242856

Luminaire Tested: S125DRP-S850D930-X4F0-XX-UDD-D-W

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-2024
Report Number: P242856
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1802-639-17)
Test Lab: INNOVATION CENTER
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S125DRP-S850D930-X4F0-XX-UDD-D-W
Description: DEFINE 5 DIRECT RECESSED WITH SATIN DROP DIFFUSER
STANDARD LIGHT ENGINE
Light Source: (92) 3000K CCT, 90 CRI LEDS
Ballast/Driver: -

Summary

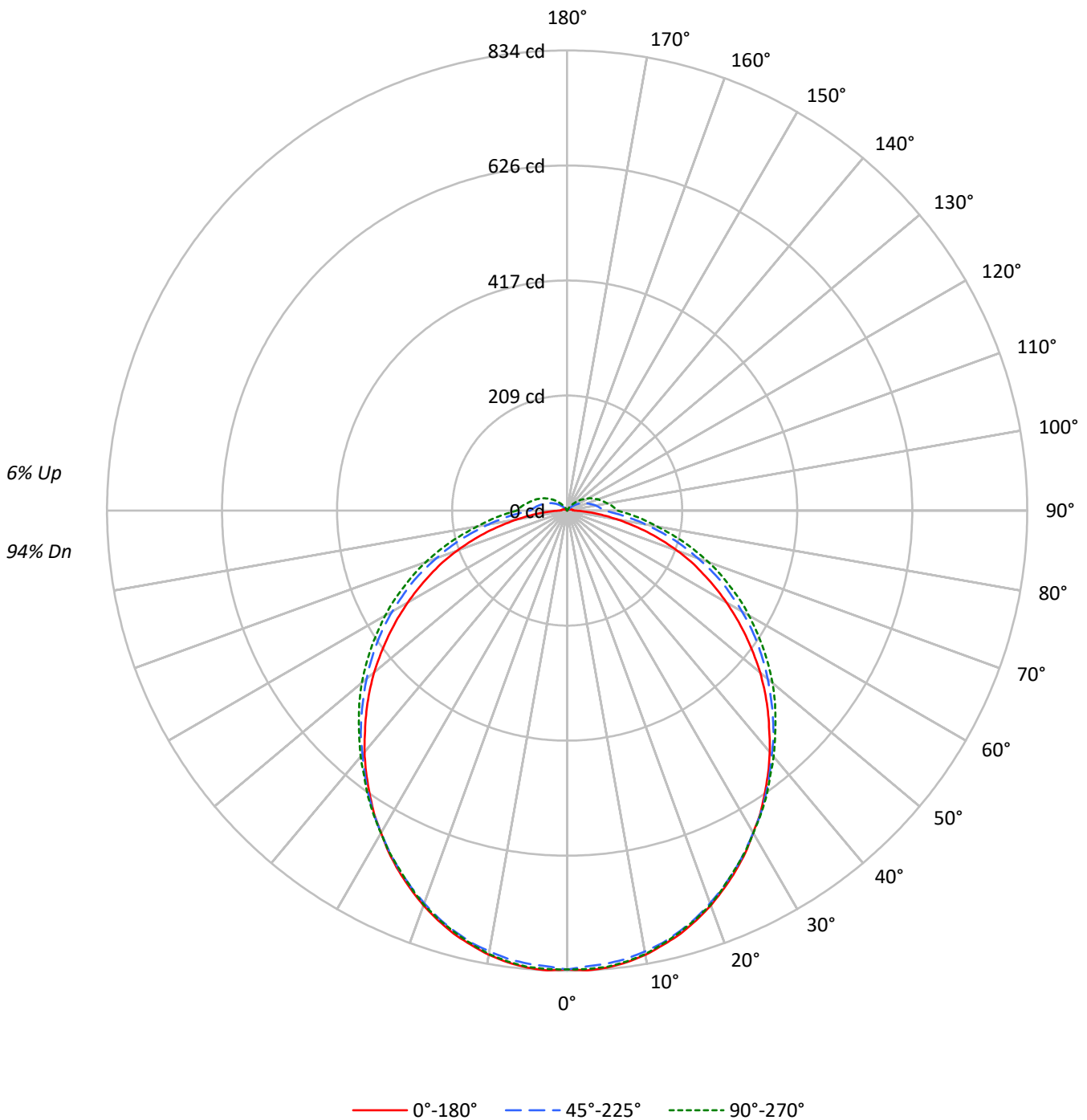
Lumens per Lamp: N/A
Luminaire Lumens: 2576.1 lumens
Efficiency: N/A
Efficacy: 97.6 lumens/watt
Spacing Criteria (0/90/45): 1.21 / 1.21 / 1.34
Luminous Opening: Rectangular w/ Sides (W: 0.39' x L: 3.88' x H: 0.08')
CIE Type: Direct

Input Watts (W): 26.4
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	118	118	118	118	114	114	114	114	108	108	108	102	102	102	96	96	96	94
1	106	101	96	92	103	98	94	90	93	89	86	88	85	82	83	81	79	76
2	96	88	80	74	93	85	78	73	81	75	70	76	72	68	72	69	65	63
3	88	77	68	61	84	75	67	60	71	64	59	67	61	57	64	59	55	53
4	80	68	59	52	77	66	58	51	63	55	50	60	53	48	57	51	47	45
5	74	60	51	44	71	59	50	44	56	49	43	53	47	42	51	45	41	39
6	68	54	45	39	66	53	45	38	51	43	38	48	42	37	46	40	36	34
7	63	49	40	34	61	48	40	34	46	39	33	44	37	33	42	36	32	30
8	59	45	36	30	57	44	36	30	42	35	30	40	34	29	39	33	29	27
9	55	41	33	27	53	40	33	27	39	32	27	37	31	26	36	30	26	24
10	51	38	30	25	50	37	30	25	36	29	24	35	28	24	33	28	23	22

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	5910	5910	5910
5°	5922	5797	5813
10°	5879	5688	5676
15°	5810	5560	5504
20°	5715	5402	5334
25°	5602	5234	5124
30°	5466	5050	4933
35°	5338	4880	4758
40°	5208	4701	4581
45°	5063	4547	4424
50°	4923	4380	4284
55°	4754	4222	4120
60°	4570	4042	3952
65°	4378	3852	3763
70°	4160	3595	3568
75°	3813	3346	3329
80°	3360	3042	3066
85°	2933	2823	2959

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 5063 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	78.7	3.1
10°-20°	223.4	8.7
20°-30°	332.2	12.9
30°-40°	393.4	15.3
40°-50°	406.7	15.8
50°-60°	374.7	14.5
60°-70°	302.9	11.8
70°-80°	202.7	7.9
80°-90°	104.7	4.1
90°-100°	59.0	2.3
100°-110°	43.5	1.7
110°-120°	29.1	1.1
120°-130°	16.5	0.6
130°-140°	7.2	0.3
140°-150°	1.4	0.1
150°-160°	0.0	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-30°	634.3	24.6
0°-40°	1027.7	39.9
0°-60°	1809.1	70.2
0°-90°	2419.4	93.9
90°-120°	131.6	5.1
90°-150°	156.7	6.1
90°-180°	157.0	6.1
0°-180°	2576.1	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	832	832	832	832	832	
5°	832	830	824	831	830	79
15°	794	795	789	794	791	224
25°	722	724	719	722	718	332
35°	624	630	628	630	630	391
45°	514	523	528	533	534	397
55°	395	408	422	430	434	353
65°	272	291	311	323	326	270
75°	150	171	197	214	218	159
85°	45	72	100	118	125	47
90°	13	39	67	86	91	9
95°	11	32	60	78	83	8
105°	7	20	45	61	67	8
115°	5	11	32	46	51	5
125°	3	2	19	32	36	3
135°	2	1	6	17	21	1
145°	1	0	0	4	7	0
155°	0	0	0	0	0	0
165°	0	0	0	0	0	0
175°	0	0	0	0	0	0
180°	0	0	0	0	0	0



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	831.6	831.6	831.6	831.6	831.6
2.5°	834.1	832.4	826.7	832.4	831.6
5°	831.6	830.0	824.3	830.8	830.0
7.5°	825.9	825.1	819.4	825.1	824.3
10°	817.7	817.7	811.2	816.9	816.1
12.5°	806.3	807.1	802.3	806.3	803.9
15°	794.1	794.9	789.2	794.1	790.8
17.5°	778.6	780.2	774.5	778.6	776.2
20°	761.5	763.1	757.4	759.9	759.9
22.5°	741.9	745.2	738.7	741.9	739.5
25°	721.5	724.0	719.1	722.4	718.3
27.5°	699.5	702.8	697.1	699.5	697.9
30°	674.3	679.1	674.3	675.9	675.1
32.5°	651.4	655.5	652.2	653.9	653.1
35°	624.5	630.2	627.8	630.2	630.2
37.5°	598.4	603.3	602.5	605.8	605.0
40°	571.5	578.0	577.2	580.5	582.1
42.5°	542.2	551.1	553.6	557.7	557.7
45°	514.5	523.4	527.5	533.2	534.0
47.5°	485.9	494.1	500.6	508.7	510.4
50°	456.6	465.5	474.5	483.5	485.9
52.5°	425.6	437.0	448.4	458.2	459.8
55°	395.4	408.5	421.5	430.5	433.7
57.5°	364.4	379.9	394.6	404.4	406.8
60°	333.5	349.8	366.1	378.3	380.7
62.5°	303.3	319.6	337.5	351.4	354.7
65°	272.3	291.1	310.6	322.9	326.1
67.5°	243.8	261.7	281.3	296.0	300.0
70°	212.0	230.7	251.9	267.4	272.3
72.5°	181.0	200.6	224.2	241.3	244.6
75°	150.0	171.2	197.3	213.6	217.7
77.5°	119.8	144.3	168.8	186.7	190.0
80°	92.1	116.6	144.3	162.2	165.5
82.5°	66.9	92.9	121.5	138.6	145.1
85°	44.8	71.7	100.3	118.2	124.7
87.5°	28.5	54.6	82.3	101.1	106.8
90°	13.0	39.1	66.9	85.6	91.3
92.5°	11.4	35.1	63.6	81.5	87.2
95°	10.6	31.8	59.5	77.5	83.2
97.5°	9.8	29.4	56.3	73.4	79.1
100°	9.0	26.1	52.2	69.3	74.2
102.5°	8.2	23.6	48.9	65.2	70.1
105°	7.3	20.4	44.8	61.1	66.9
107.5°	6.5	17.9	41.6	57.9	62.8
110°	5.7	15.5	38.3	53.8	59.5



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	5.7	13.0	35.1	49.7	55.4
115°	4.9	10.6	31.8	46.5	51.4
117.5°	4.1	8.2	28.5	42.4	48.1
120°	4.1	6.5	25.3	39.1	44.0
122.5°	3.3	4.1	22.0	35.1	39.9
125°	3.3	2.4	18.8	31.8	35.9
127.5°	2.4	1.6	15.5	27.7	32.6
130°	2.4	1.6	13.0	24.5	28.5
132.5°	1.6	1.6	9.8	21.2	24.5
135°	1.6	0.8	6.5	17.1	21.2
137.5°	1.6	0.8	4.1	13.9	17.1
140°	0.8	0.8	1.6	10.6	13.9
142.5°	0.8	0.0	0.0	7.3	10.6
145°	0.8	0.0	0.0	4.1	7.3
147.5°	0.0	0.0	0.0	1.6	3.3
150°	0.0	0.0	0.0	0.0	0.8
152.5°	0.0	0.0	0.0	0.0	0.0
155°	0.0	0.0	0.0	0.0	0.0
157.5°	0.0	0.0	0.0	0.0	0.0
160°	0.0	0.0	0.0	0.0	0.0
162.5°	0.0	0.0	0.0	0.0	0.0
165°	0.0	0.0	0.0	0.0	0.0
167.5°	0.0	0.0	0.0	0.0	0.0
170°	0.0	0.0	0.0	0.0	0.0
172.5°	0.0	0.0	0.0	0.0	0.0
175°	0.0	0.0	0.0	0.0	0.0
177.5°	0.0	0.0	0.0	0.0	0.0
180°	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	16.09	17.62	16.55	18.06	18.53	17.13	18.67	17.59	19.10	19.57
	3H	17.74	19.14	18.21	19.58	20.09	19.31	20.70	19.78	21.15	21.66
	4H	18.31	19.63	18.80	20.10	20.62	20.27	21.59	20.76	22.06	22.58
	6H	18.69	19.92	19.19	20.40	20.93	21.17	22.40	21.68	22.88	23.41
	8H	18.79	19.97	19.31	20.47	21.01	21.61	22.78	22.12	23.28	23.82
	12H	18.86	19.98	19.38	20.48	21.05	22.06	23.19	22.59	23.69	24.26
4H	2H	16.85	18.17	17.34	18.64	19.16	17.67	18.98	18.16	19.45	19.97
	3H	18.73	19.85	19.24	20.36	20.90	20.06	21.18	20.56	21.69	22.23
	4H	19.43	20.45	19.96	20.98	21.55	21.17	22.19	21.70	22.71	23.29
	6H	19.94	20.84	20.49	21.39	21.98	22.24	23.13	22.78	23.68	24.27
	8H	20.09	20.94	20.64	21.48	22.09	22.76	23.60	23.31	24.15	24.75
	12H	20.19	20.96	20.77	21.53	22.14	23.31	24.08	23.89	24.65	25.26
8H	4H	19.92	20.76	20.47	21.31	21.91	21.43	22.27	21.98	22.82	23.42
	6H	20.58	21.29	21.16	21.88	22.49	22.65	23.36	23.24	23.95	24.56
	8H	20.82	21.46	21.42	22.06	22.68	23.29	23.93	23.89	24.53	25.16
	12H	21.00	21.57	21.60	22.16	22.85	24.01	24.57	24.60	25.16	25.85
12H	4H	20.02	20.78	20.59	21.36	21.96	21.45	22.21	22.02	22.79	23.40
	6H	20.74	21.38	21.34	21.99	22.61	22.70	23.34	23.30	23.95	24.57
	8H	21.06	21.63	21.66	22.22	22.91	23.41	23.98	24.01	24.57	25.26