

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: P242866

Luminaire Tested: S125DRP-S850D940-X4F0-XX-UDD-D-W

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-2024
Report Number: P242866
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-S850D940-X4F0-XX-UDD-D-W
Description: DEFINE 5 DIRECT RECESSED WITH SATIN DROP DIFFUSER
STANDARD LIGHT ENGINE
Light Source: (92) 4000K CCT, 90 CRI LEDS
Ballast/Driver: -

Summary

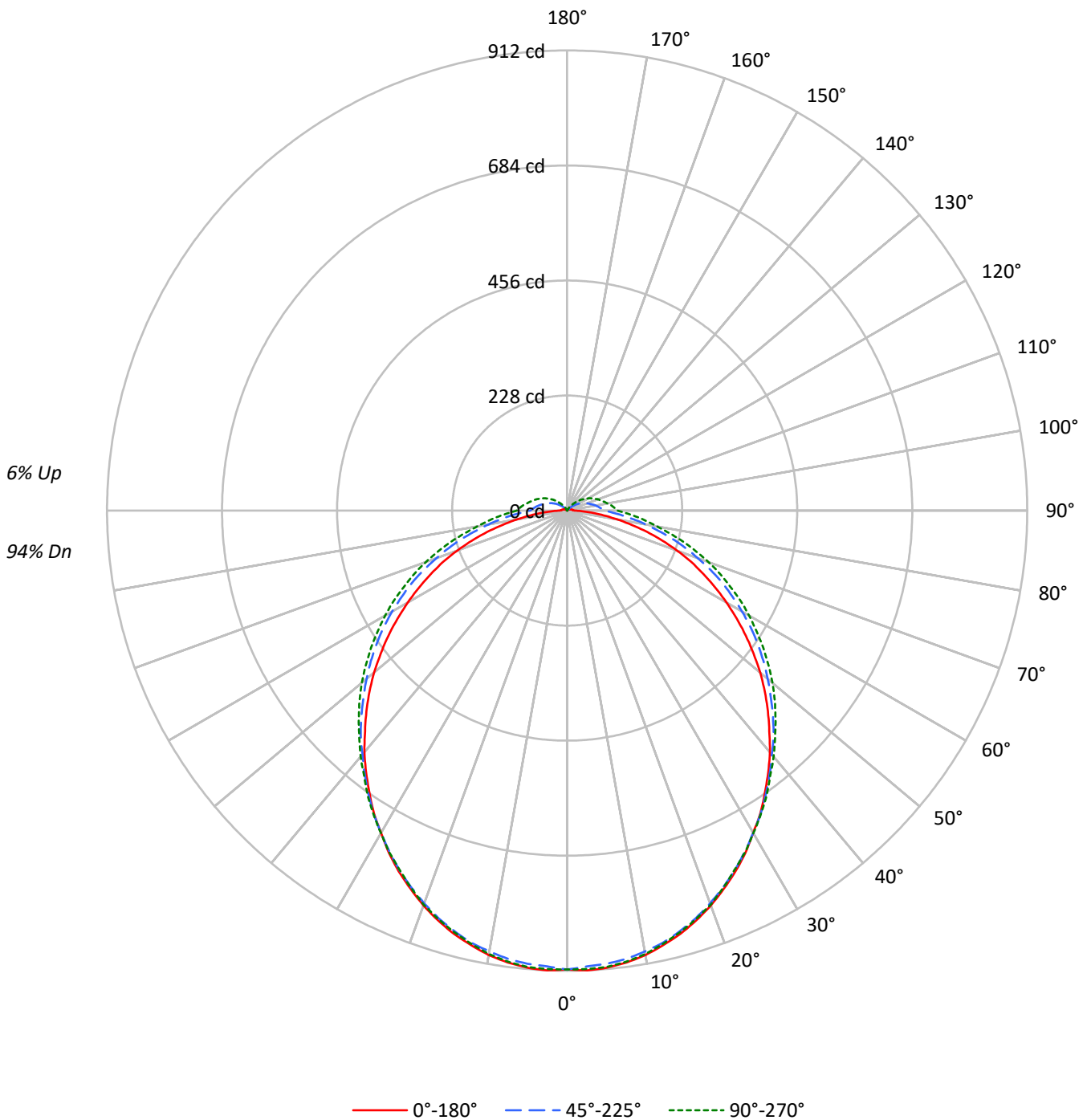
Lumens per Lamp: N/A
Luminaire Lumens: 2817.6 lumens
Efficiency: N/A
Efficacy: 106.7 lumens/watt
Spacing Criteria (0/90/45): 1.21 / 1.21 / 1.34
Luminous Opening: Rectangular w/ Sides (W: 0.39' x L: 3.88' x H: 0.08')
CIE Type: Direct

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	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°	6464	6464	6464
5°	6477	6340	6358
10°	6430	6222	6208
15°	6354	6081	6021
20°	6251	5909	5833
25°	6128	5725	5604
30°	5978	5523	5395
35°	5839	5337	5204
40°	5697	5141	5011
45°	5537	4973	4839
50°	5384	4791	4686
55°	5200	4618	4506
60°	4998	4421	4323
65°	4787	4213	4117
70°	4548	3932	3902
75°	4172	3659	3641
80°	3677	3327	3353
85°	3207	3088	3236

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 5537 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	86.1	3.1
10°-20°	244.3	8.7
20°-30°	363.3	12.9
30°-40°	430.3	15.3
40°-50°	444.9	15.8
50°-60°	409.8	14.5
60°-70°	331.3	11.8
70°-80°	221.7	7.9
80°-90°	114.6	4.1
90°-100°	64.5	2.3
100°-110°	47.6	1.7
110°-120°	31.8	1.1
120°-130°	18.0	0.6
130°-140°	7.9	0.3
140°-150°	1.6	0.1
150°-160°	0.0	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-30°	693.7	24.6
0°-40°	1124.0	39.9
0°-60°	1978.7	70.2
0°-90°	2646.2	93.9
90°-120°	144.0	5.1
90°-150°	171.5	6.1
90°-180°	171.0	6.1
0°-180°	2817.6	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	910	910	910	910	910	
5°	910	908	902	909	908	86
15°	868	869	863	868	865	245
25°	789	792	786	790	786	363
35°	683	689	687	689	689	428
45°	563	572	577	583	584	434
55°	432	447	461	471	474	387
65°	298	318	340	353	357	296
75°	164	187	216	234	238	174
85°	49	78	110	129	136	51
90°	14	43	73	94	100	10
95°	12	35	65	85	91	9
105°	8	22	49	67	73	8
115°	5	12	35	51	56	5
125°	4	3	20	35	39	3
135°	2	1	7	19	23	1
145°	1	0	0	4	8	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°	909.5	909.5	909.5	909.5	909.5
2.5°	912.2	910.4	904.2	910.4	909.5
5°	909.5	907.8	901.5	908.7	907.8
7.5°	903.3	902.4	896.2	902.4	901.5
10°	894.4	894.4	887.3	893.5	892.6
12.5°	881.9	882.8	877.4	881.9	879.2
15°	868.5	869.4	863.2	868.5	865.0
17.5°	851.6	853.4	847.1	851.6	848.9
20°	832.9	834.6	828.4	831.1	831.1
22.5°	811.5	815.0	807.9	811.5	808.8
25°	789.2	791.8	786.5	790.1	785.6
27.5°	765.1	768.7	762.4	765.1	763.3
30°	737.4	742.8	737.4	739.2	738.3
32.5°	712.5	716.9	713.4	715.2	714.3
35°	683.1	689.3	686.6	689.3	689.3
37.5°	654.5	659.9	659.0	662.5	661.6
40°	625.1	632.2	631.3	634.9	636.7
42.5°	593.0	602.8	605.5	609.9	609.9
45°	562.7	572.5	576.9	583.2	584.1
47.5°	531.5	540.4	547.5	556.4	558.2
50°	499.4	509.2	519.0	528.8	531.5
52.5°	465.5	478.0	490.4	501.1	502.9
55°	432.5	446.7	461.0	470.8	474.4
57.5°	398.6	415.5	431.6	442.3	445.0
60°	364.7	382.5	400.4	413.8	416.4
62.5°	331.7	349.6	369.2	384.3	387.9
65°	297.8	318.3	339.7	353.1	356.7
67.5°	266.6	286.2	307.6	323.7	328.1
70°	231.8	252.4	275.5	292.5	297.8
72.5°	198.0	219.4	245.2	263.9	267.5
75°	164.1	187.3	215.8	233.6	238.1
77.5°	131.1	157.8	184.6	204.2	207.8
80°	100.8	127.5	157.8	177.5	181.0
82.5°	73.1	101.7	132.9	151.6	158.7
85°	49.0	78.5	109.7	129.3	136.4
87.5°	31.2	59.7	90.1	110.6	116.8
90°	14.3	42.8	73.1	93.6	99.9
92.5°	12.5	38.3	69.6	89.2	95.4
95°	11.6	34.8	65.1	84.7	91.0
97.5°	10.7	32.1	61.5	80.3	86.5
100°	9.8	28.5	57.1	75.8	81.1
102.5°	8.9	25.9	53.5	71.3	76.7
105°	8.0	22.3	49.0	66.9	73.1
107.5°	7.1	19.6	45.5	63.3	68.7
110°	6.2	16.9	41.9	58.9	65.1



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	6.2	14.3	38.3	54.4	60.6
115°	5.4	11.6	34.8	50.8	56.2
117.5°	4.5	8.9	31.2	46.4	52.6
120°	4.5	7.1	27.6	42.8	48.2
122.5°	3.6	4.5	24.1	38.3	43.7
125°	3.6	2.7	20.5	34.8	39.2
127.5°	2.7	1.8	16.9	30.3	35.7
130°	2.7	1.8	14.3	26.8	31.2
132.5°	1.8	1.8	10.7	23.2	26.8
135°	1.8	0.9	7.1	18.7	23.2
137.5°	1.8	0.9	4.5	15.2	18.7
140°	0.9	0.9	1.8	11.6	15.2
142.5°	0.9	0.0	0.0	8.0	11.6
145°	0.9	0.0	0.0	4.5	8.0
147.5°	0.0	0.0	0.0	1.8	3.6
150°	0.0	0.0	0.0	0.0	0.9
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	16.40	17.93	16.86	18.37	18.84	17.44	18.98	17.90	19.42	19.88
	3H	18.05	19.45	18.52	19.90	20.40	19.62	21.02	20.09	21.47	21.97
	4H	18.62	19.94	19.11	20.41	20.93	20.59	21.90	21.08	22.37	22.89
	6H	19.00	20.23	19.51	20.71	21.24	21.48	22.71	21.99	23.19	23.72
	8H	19.11	20.28	19.62	20.78	21.32	21.92	23.09	22.43	23.59	24.14
	12H	19.17	20.29	19.69	20.79	21.36	22.37	23.50	22.90	24.00	24.57
4H	2H	17.16	18.48	17.66	18.95	19.47	17.98	19.30	18.47	19.76	20.28
	3H	19.04	20.16	19.55	20.67	21.21	20.37	21.49	20.88	22.00	22.54
	4H	19.75	20.76	20.27	21.29	21.86	21.48	22.50	22.01	23.03	23.60
	6H	20.25	21.15	20.80	21.70	22.29	22.55	23.45	23.09	23.99	24.58
	8H	20.41	21.25	20.96	21.80	22.40	23.07	23.91	23.62	24.46	25.06
	12H	20.51	21.27	21.08	21.85	22.45	23.63	24.39	24.20	24.97	25.57
8H	4H	20.23	21.07	20.78	21.62	22.22	21.74	22.59	22.29	23.13	23.74
	6H	20.89	21.60	21.48	22.19	22.80	22.96	23.67	23.55	24.27	24.87
	8H	21.13	21.77	21.73	22.37	23.00	23.60	24.24	24.20	24.85	25.47
	12H	21.31	21.88	21.91	22.47	23.16	24.32	24.88	24.91	25.48	26.16
12H	4H	20.33	21.09	20.90	21.67	22.27	21.76	22.52	22.33	23.10	23.71
	6H	21.06	21.70	21.65	22.30	22.92	23.01	23.65	23.61	24.26	24.88
	8H	21.37	21.94	21.97	22.53	23.22	23.72	24.29	24.32	24.88	25.57