

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: P242863

Luminaire Tested: S125DRP-S1270D935-X4F0-XX-UDD-D-W

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-2024
Report Number: P242863
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-S1270D935-X4F0-XX-UDD-D-W
Description: DEFINE 5 DIRECT RECESSED WITH SATIN DROP DIFFUSER
STANDARD LIGHT ENGINE
Light Source: (92) 3500K CCT, 90 CRI LEDS
Ballast/Driver: -

Summary

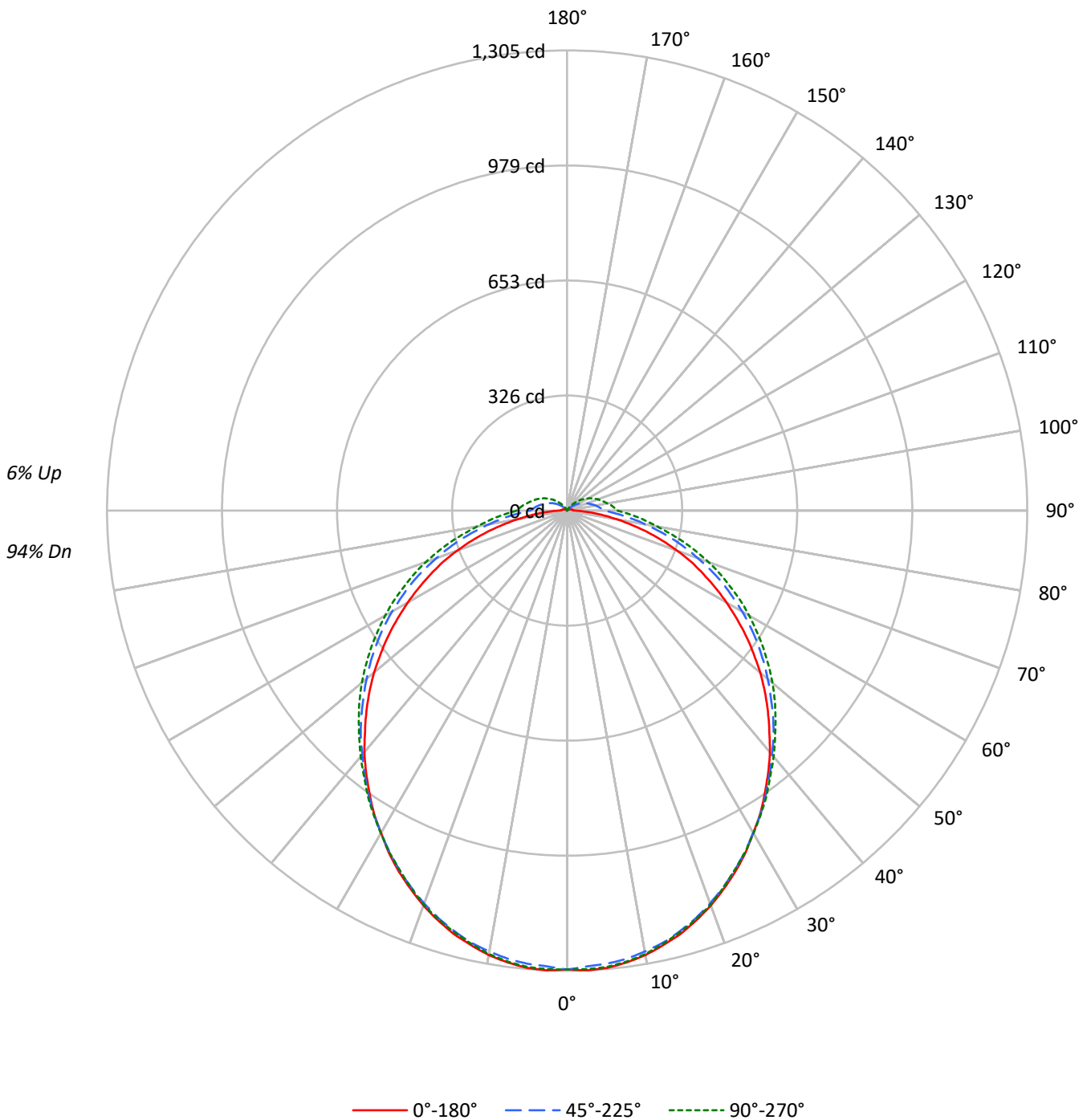
Lumens per Lamp: N/A
Luminaire Lumens: 4032.1 lumens
Efficiency: N/A
Efficacy: 98.1 lumens/watt
Spacing Criteria (0/90/45): 1.21 / 1.21 / 1.34
Luminous Opening: Rectangular w/ Sides (W: 0.39' x L: 3.88' x H: 0.08')
CIE Type: Direct

Input Watts (W): 41.1
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	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°	9251	9251	9251
5°	9269	9072	9098
10°	9202	8903	8884
15°	9093	8702	8616
20°	8944	8456	8347
25°	8768	8192	8019
30°	8554	7903	7721
35°	8355	7638	7447
40°	8152	7358	7170
45°	7923	7117	6924
50°	7704	6856	6705
55°	7440	6608	6449
60°	7152	6326	6186
65°	6852	6030	5890
70°	6510	5628	5585
75°	5969	5236	5210
80°	5260	4763	4799
85°	4595	4419	4631

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 7923 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	123.2	3.1
10°-20°	349.6	8.7
20°-30°	519.9	12.9
30°-40°	615.8	15.3
40°-50°	636.6	15.8
50°-60°	586.4	14.5
60°-70°	474.1	11.8
70°-80°	317.2	7.9
80°-90°	164.0	4.1
90°-100°	92.3	2.3
100°-110°	68.1	1.7
110°-120°	45.6	1.1
120°-130°	25.8	0.6
130°-140°	11.3	0.3
140°-150°	2.2	0.1
150°-160°	0.0	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-30°	992.7	24.6
0°-40°	1608.5	39.9
0°-60°	2831.5	70.2
0°-90°	3786.7	93.9
90°-120°	206.0	5.1
90°-150°	245.4	6.1
90°-180°	245.0	6.1
0°-180°	4032.1	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1302	1302	1302	1302	1302	
5°	1302	1299	1290	1300	1299	124
15°	1243	1244	1235	1243	1238	350
25°	1129	1133	1126	1131	1124	520
35°	978	986	983	986	986	612
45°	805	819	826	834	836	621
55°	619	639	660	674	679	553
65°	426	456	486	505	510	423
75°	235	268	309	334	341	249
85°	70	112	157	185	195	73
90°	20	61	105	134	143	14
95°	17	50	93	121	130	13
105°	12	32	70	96	105	12
115°	8	17	50	73	80	8
125°	5	4	29	50	56	4
135°	3	1	10	27	33	2
145°	1	0	0	6	12	1
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°	1301.6	1301.6	1301.6	1301.6	1301.6
2.5°	1305.4	1302.9	1293.9	1302.9	1301.6
5°	1301.6	1299.0	1290.1	1300.3	1299.0
7.5°	1292.7	1291.4	1282.4	1291.4	1290.1
10°	1279.9	1279.9	1269.7	1278.6	1277.3
12.5°	1262.0	1263.3	1255.7	1262.0	1258.2
15°	1242.9	1244.2	1235.2	1242.9	1237.8
17.5°	1218.6	1221.2	1212.3	1218.6	1214.8
20°	1191.8	1194.4	1185.5	1189.3	1189.3
22.5°	1161.2	1166.3	1156.1	1161.2	1157.4
25°	1129.3	1133.1	1125.5	1130.6	1124.2
27.5°	1094.9	1100.0	1091.0	1094.9	1092.3
30°	1055.3	1063.0	1055.3	1057.9	1056.6
32.5°	1019.6	1026.0	1020.9	1023.4	1022.1
35°	977.5	986.4	982.6	986.4	986.4
37.5°	936.6	944.3	943.0	948.1	946.8
40°	894.5	904.7	903.5	908.6	911.1
42.5°	848.6	862.6	866.5	872.8	872.8
45°	805.2	819.2	825.6	834.5	835.8
47.5°	760.5	773.3	783.5	796.3	798.8
50°	714.6	728.6	742.7	756.7	760.5
52.5°	666.1	684.0	701.8	717.2	719.7
55°	618.9	639.3	659.7	673.8	678.9
57.5°	570.4	594.6	617.6	632.9	636.8
60°	521.9	547.4	573.0	592.1	595.9
62.5°	474.7	500.2	528.3	550.0	555.1
65°	426.2	455.6	486.2	505.3	510.4
67.5°	381.5	409.6	440.2	463.2	469.6
70°	331.8	361.1	394.3	418.6	426.2
72.5°	283.3	313.9	350.9	377.7	382.8
75°	234.8	268.0	308.8	334.3	340.7
77.5°	187.6	225.9	264.1	292.2	297.3
80°	144.2	182.5	225.9	253.9	259.0
82.5°	104.6	145.5	190.1	216.9	227.1
85°	70.2	112.3	157.0	185.0	195.2
87.5°	44.7	85.5	128.9	158.2	167.2
90°	20.4	61.3	104.6	134.0	142.9
92.5°	17.9	54.9	99.5	127.6	136.5
95°	16.6	49.8	93.2	121.2	130.2
97.5°	15.3	45.9	88.0	114.8	123.8
100°	14.0	40.8	81.7	108.5	116.1
102.5°	12.8	37.0	76.6	102.1	109.7
105°	11.5	31.9	70.2	95.7	104.6
107.5°	10.2	28.1	65.1	90.6	98.3
110°	8.9	24.2	60.0	84.2	93.2



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	8.9	20.4	54.9	77.8	86.8
115°	7.7	16.6	49.8	72.7	80.4
117.5°	6.4	12.8	44.7	66.4	75.3
120°	6.4	10.2	39.6	61.3	68.9
122.5°	5.1	6.4	34.5	54.9	62.5
125°	5.1	3.8	29.3	49.8	56.1
127.5°	3.8	2.6	24.2	43.4	51.0
130°	3.8	2.6	20.4	38.3	44.7
132.5°	2.6	2.6	15.3	33.2	38.3
135°	2.6	1.3	10.2	26.8	33.2
137.5°	2.6	1.3	6.4	21.7	26.8
140°	1.3	1.3	2.6	16.6	21.7
142.5°	1.3	0.0	0.0	11.5	16.6
145°	1.3	0.0	0.0	6.4	11.5
147.5°	0.0	0.0	0.0	2.6	5.1
150°	0.0	0.0	0.0	0.0	1.3
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	17.65	19.18	18.11	19.62	20.08	18.69	20.22	19.15	20.66	21.12
	3H	19.30	20.69	19.77	21.14	21.65	20.87	22.26	21.34	22.71	23.22
	4H	19.87	21.19	20.36	21.65	22.17	21.83	23.15	22.32	23.62	24.13
	6H	20.25	21.47	20.75	21.95	22.49	22.73	23.95	23.23	24.43	24.97
	8H	20.35	21.52	20.87	22.03	22.57	23.16	24.33	23.68	24.84	25.38
	12H	20.41	21.54	20.93	22.03	22.61	23.62	24.74	24.14	25.24	25.81
4H	2H	18.41	19.73	18.90	20.19	20.71	19.22	20.54	19.72	21.01	21.53
	3H	20.29	21.41	20.79	21.92	22.46	21.62	22.73	22.12	23.25	23.79
	4H	20.99	22.01	21.52	22.53	23.11	22.73	23.75	23.25	24.27	24.85
	6H	21.50	22.40	22.04	22.94	23.53	23.79	24.69	24.34	25.24	25.83
	8H	21.65	22.49	22.20	23.04	23.64	24.31	25.15	24.86	25.70	26.31
	12H	21.75	22.51	22.32	23.09	23.70	24.87	25.63	25.44	26.21	26.82
8H	4H	21.47	22.32	22.02	22.86	23.47	22.99	23.83	23.54	24.38	24.98
	6H	22.14	22.85	22.72	23.44	24.05	24.21	24.92	24.79	25.51	26.12
	8H	22.38	23.02	22.97	23.62	24.24	24.85	25.49	25.44	26.09	26.71
	12H	22.56	23.13	23.16	23.72	24.41	25.56	26.13	26.16	26.72	27.41
12H	4H	21.57	22.33	22.14	22.91	23.52	23.01	23.77	23.58	24.35	24.95
	6H	22.30	22.94	22.90	23.54	24.16	24.26	24.90	24.86	25.50	26.12
	8H	22.62	23.19	23.22	23.78	24.47	24.97	25.53	25.56	26.12	26.81