

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: P242847

Luminaire Tested: S125DRP-S1090D835-X4F0-XX-UDD-D-W

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-2024
Report Number: P242847
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-S1090D835-X4F0-XX-UDD-D-W
Description: DEFINE 5 DIRECT RECESSED WITH SATIN DROP DIFFUSER
STANDARD LIGHT ENGINE
Light Source: (92) 3500K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

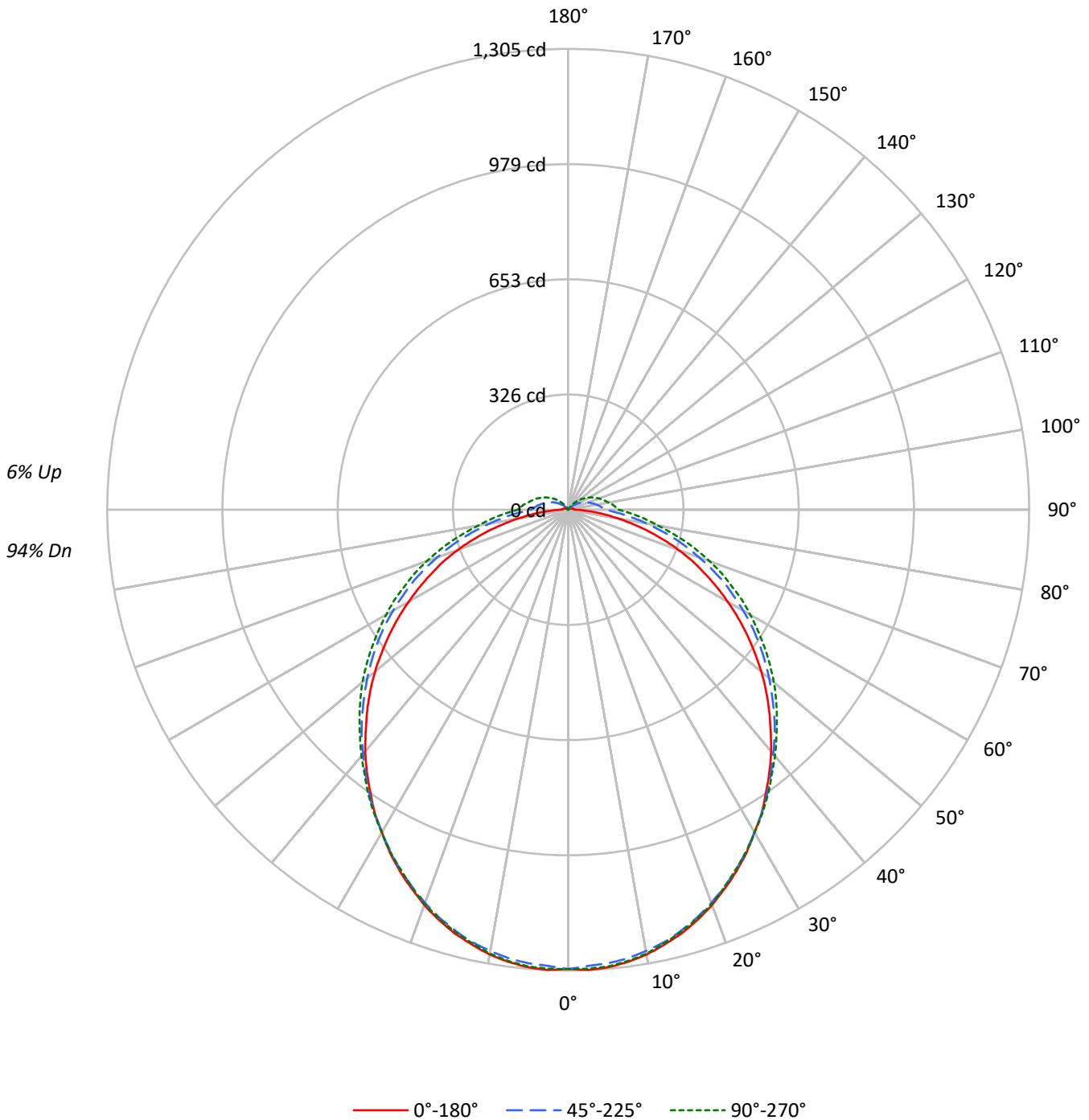
Lumens per Lamp: N/A
Luminaire Lumens: 4029.5 lumens
Efficiency: N/A
Efficacy: 115.8 lumens/watt
Spacing Criteria (0/90/45): 1.21 / 1.21 / 1.34
Luminous Opening: Rectangular w/ Sides (W: 0.39' x L: 3.88' x H: 0.08')
CIE Type: Direct

Input Watts (W): 34.8
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°	9245	9245	9245
5°	9263	9067	9092
10°	9196	8897	8879
15°	9087	8696	8610
20°	8939	8450	8342
25°	8763	8187	8014
30°	8549	7898	7716
35°	8349	7632	7442
40°	8147	7353	7166
45°	7918	7113	6920
50°	7699	6851	6701
55°	7436	6604	6444
60°	7148	6322	6182
65°	6847	6027	5887
70°	6506	5625	5581
75°	5964	5233	5207
80°	5257	4759	4797
85°	4589	4417	4629

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 7918 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	123.1	3.1
10°-20°	349.4	8.7
20°-30°	519.6	12.9
30°-40°	615.4	15.3
40°-50°	636.2	15.8
50°-60°	586.0	14.5
60°-70°	473.8	11.8
70°-80°	317.0	7.9
80°-90°	163.8	4.1
90°-100°	92.3	2.3
100°-110°	68.0	1.7
110°-120°	45.5	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°	992.1	24.6
0°-40°	1607.5	39.9
0°-60°	2829.7	70.2
0°-90°	3784.3	93.9
90°-120°	205.9	5.1
90°-150°	245.2	6.1
90°-180°	245.0	6.1
0°-180°	4029.5	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1301	1301	1301	1301	1301	
5°	1301	1298	1289	1300	1298	123
15°	1242	1243	1234	1242	1237	350
25°	1129	1132	1125	1130	1124	520
35°	977	986	982	986	986	611
45°	805	819	825	834	835	621
55°	618	639	659	673	678	553
65°	426	455	486	505	510	423
75°	235	268	309	334	340	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°	1300.8	1300.8	1300.8	1300.8	1300.8
2.5°	1304.6	1302.0	1293.1	1302.0	1300.8
5°	1300.8	1298.2	1289.3	1299.5	1298.2
7.5°	1291.8	1290.5	1281.6	1290.5	1289.3
10°	1279.1	1279.1	1268.9	1277.8	1276.5
12.5°	1261.2	1262.5	1254.8	1261.2	1257.4
15°	1242.1	1243.4	1234.4	1242.1	1237.0
17.5°	1217.9	1220.4	1211.5	1217.9	1214.0
20°	1191.1	1193.6	1184.7	1188.5	1188.5
22.5°	1160.5	1165.6	1155.4	1160.5	1156.6
25°	1128.6	1132.4	1124.8	1129.9	1123.5
27.5°	1094.2	1099.3	1090.3	1094.2	1091.6
30°	1054.6	1062.3	1054.6	1057.2	1055.9
32.5°	1018.9	1025.3	1020.2	1022.7	1021.5
35°	976.8	985.8	981.9	985.8	985.8
37.5°	936.0	943.7	942.4	947.5	946.2
40°	893.9	904.1	902.9	908.0	910.5
42.5°	848.0	862.1	865.9	872.3	872.3
45°	804.7	818.7	825.1	834.0	835.3
47.5°	760.0	772.8	783.0	795.8	798.3
50°	714.1	728.2	742.2	756.2	760.0
52.5°	665.7	683.5	701.4	716.7	719.2
55°	618.5	638.9	659.3	673.3	678.4
57.5°	570.0	594.3	617.2	632.5	636.3
60°	521.6	547.1	572.6	591.7	595.5
62.5°	474.4	499.9	528.0	549.6	554.7
65°	425.9	455.3	485.9	505.0	510.1
67.5°	381.3	409.4	440.0	462.9	469.3
70°	331.6	360.9	394.1	418.3	425.9
72.5°	283.1	313.7	350.7	377.5	382.6
75°	234.6	267.8	308.6	334.1	340.5
77.5°	187.5	225.7	264.0	292.0	297.1
80°	144.1	182.4	225.7	253.8	258.9
82.5°	104.6	145.4	190.0	216.8	227.0
85°	70.1	112.2	156.9	184.9	195.1
87.5°	44.6	85.4	128.8	158.1	167.1
90°	20.4	61.2	104.6	133.9	142.8
92.5°	17.9	54.8	99.5	127.5	136.5
95°	16.6	49.7	93.1	121.1	130.1
97.5°	15.3	45.9	88.0	114.8	123.7
100°	14.0	40.8	81.6	108.4	116.0
102.5°	12.8	37.0	76.5	102.0	109.7
105°	11.5	31.9	70.1	95.6	104.6
107.5°	10.2	28.1	65.0	90.5	98.2
110°	8.9	24.2	59.9	84.2	93.1



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	8.9	20.4	54.8	77.8	86.7
115°	7.7	16.6	49.7	72.7	80.3
117.5°	6.4	12.8	44.6	66.3	75.2
120°	6.4	10.2	39.5	61.2	68.9
122.5°	5.1	6.4	34.4	54.8	62.5
125°	5.1	3.8	29.3	49.7	56.1
127.5°	3.8	2.6	24.2	43.4	51.0
130°	3.8	2.6	20.4	38.3	44.6
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	18.10	19.62	20.08	18.69	20.22	19.14	20.66	21.12
	3H	19.30	20.69	19.77	21.14	21.64	20.87	22.26	21.34	22.71	23.21
	4H	19.87	21.18	20.36	21.65	22.17	21.83	23.15	22.32	23.61	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	21.53	20.93	22.03	22.60	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	19.71	21.01	21.53
	3H	20.29	21.40	20.79	21.92	22.46	21.61	22.73	22.12	23.24	23.78
	4H	20.99	22.01	21.51	22.53	23.11	22.73	23.75	23.25	24.27	24.84
	6H	21.50	22.39	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	26.30
	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	22.31	22.02	22.86	23.46	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	23.01	22.97	23.62	24.24	24.85	25.49	25.44	26.09	26.71
	12H	22.56	23.13	23.15	23.72	24.40	25.56	26.13	26.16	26.72	27.41
12H	4H	21.57	22.33	22.14	22.91	23.52	23.00	23.77	23.58	24.34	24.95
	6H	22.30	22.94	22.89	23.54	24.16	24.26	24.90	24.85	25.50	26.12
	8H	22.62	23.19	23.21	23.78	24.46	24.96	25.53	25.56	26.12	26.81