

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: P242853

Luminaire Tested: S125DRP-S1270D840-X4F0-XX-UDD-D-W

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-2024
Report Number: P242853
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-S1270D840-X4F0-XX-UDD-D-W
Description: DEFINE 5 DIRECT RECESSED WITH SATIN DROP DIFFUSER
STANDARD LIGHT ENGINE
Light Source: (92) 4000K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

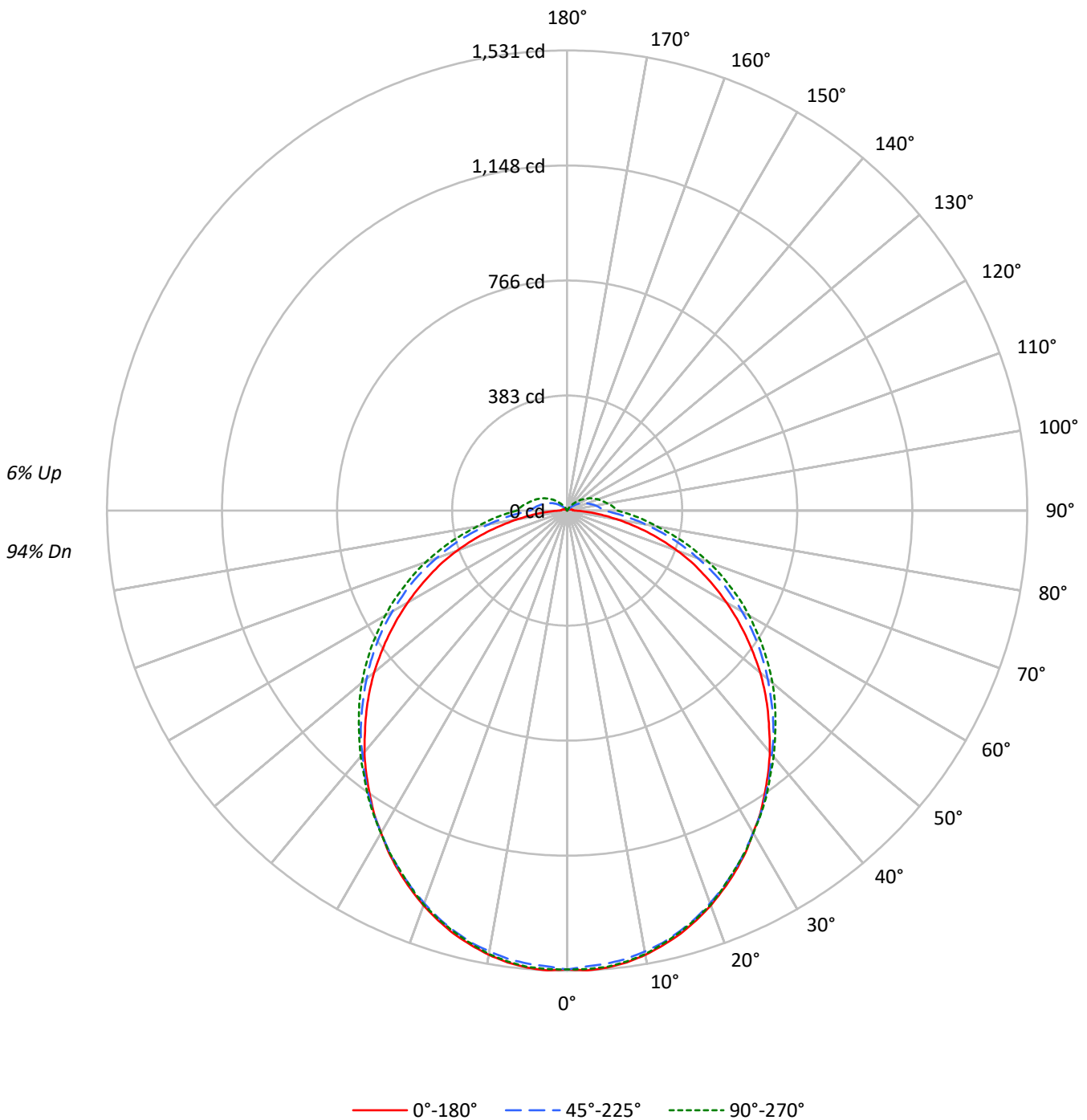
Lumens per Lamp: N/A
Luminaire Lumens: 4729.2 lumens
Efficiency: N/A
Efficacy: 115.1 lumens/watt
Spacing Criteria (0/90/45): 1.21 / 1.21 / 1.34
Luminous Opening: Rectangular w/ Sides (W: 0.39' x L: 3.88' x H: 0.08')
CIE Type: Direct

Input Watts (W): 41.1
Input Voltage (V): 120
Input Current (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°	10850	10850	10850
5°	10871	10641	10671
10°	10793	10442	10421
15°	10665	10206	10105
20°	10491	9917	9791
25°	10284	9609	9405
30°	10034	9270	9056
35°	9800	8959	8734
40°	9562	8630	8410
45°	9293	8348	8122
50°	9036	8041	7865
55°	8727	7751	7563
60°	8388	7419	7256
65°	8036	7072	6909
70°	7635	6601	6551
75°	7001	6142	6111
80°	6169	5585	5629
85°	5387	5182	5433

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 9293 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	144.5	3.1
10°-20°	410.1	8.7
20°-30°	609.8	12.9
30°-40°	722.2	15.3
40°-50°	746.7	15.8
50°-60°	687.8	14.5
60°-70°	556.0	11.8
70°-80°	372.0	7.9
80°-90°	192.3	4.1
90°-100°	108.3	2.3
100°-110°	79.8	1.7
110°-120°	53.5	1.1
120°-130°	30.3	0.6
130°-140°	13.2	0.3
140°-150°	2.6	0.1
150°-160°	0.0	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-30°	1164.4	24.6
0°-40°	1886.6	39.9
0°-60°	3321.1	70.2
0°-90°	4441.5	93.9
90°-120°	241.6	5.1
90°-150°	287.8	6.1
90°-180°	288.0	6.1
0°-180°	4729.2	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1527	1527	1527	1527	1527	
5°	1527	1524	1513	1525	1524	145
15°	1458	1459	1449	1458	1452	411
25°	1325	1329	1320	1326	1319	610
35°	1146	1157	1152	1157	1157	718
45°	944	961	968	979	980	729
55°	726	750	774	790	796	649
65°	500	534	570	593	599	496
75°	275	314	362	392	400	292
85°	82	132	184	217	229	86
90°	24	72	123	157	168	17
95°	20	58	109	142	153	15
105°	14	37	82	112	123	14
115°	9	20	58	85	94	9
125°	6	4	34	58	66	5
135°	3	2	12	31	39	2
145°	2	0	0	8	14	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°	1526.6	1526.6	1526.6	1526.6	1526.6
2.5°	1531.1	1528.1	1517.7	1528.1	1526.6
5°	1526.6	1523.6	1513.2	1525.1	1523.6
7.5°	1516.2	1514.7	1504.2	1514.7	1513.2
10°	1501.2	1501.2	1489.2	1499.7	1498.2
12.5°	1480.2	1481.7	1472.8	1480.2	1475.7
15°	1457.8	1459.3	1448.8	1457.8	1451.8
17.5°	1429.3	1432.3	1421.9	1429.3	1424.9
20°	1397.9	1400.9	1390.4	1394.9	1394.9
22.5°	1362.0	1368.0	1356.0	1362.0	1357.5
25°	1324.6	1329.1	1320.1	1326.1	1318.6
27.5°	1284.2	1290.2	1279.7	1284.2	1281.2
30°	1237.8	1246.7	1237.8	1240.8	1239.3
32.5°	1195.9	1203.3	1197.4	1200.4	1198.9
35°	1146.5	1156.9	1152.5	1156.9	1156.9
37.5°	1098.6	1107.6	1106.1	1112.0	1110.5
40°	1049.2	1061.2	1059.7	1065.6	1068.6
42.5°	995.3	1011.8	1016.3	1023.7	1023.7
45°	944.4	960.9	968.4	978.8	980.3
47.5°	892.0	907.0	919.0	933.9	936.9
50°	838.2	854.6	871.1	887.5	892.0
52.5°	781.3	802.2	823.2	841.1	844.1
55°	725.9	749.8	773.8	790.3	796.2
57.5°	669.0	697.5	724.4	742.4	746.9
60°	612.1	642.1	672.0	694.5	699.0
62.5°	556.8	586.7	619.6	645.1	651.1
65°	499.9	534.3	570.2	592.7	598.7
67.5°	447.5	480.4	516.4	543.3	550.8
70°	389.1	423.6	462.5	490.9	499.9
72.5°	332.3	368.2	411.6	443.0	449.0
75°	275.4	314.3	362.2	392.1	399.6
77.5°	220.0	264.9	309.8	342.7	348.7
80°	169.1	214.0	264.9	297.8	303.8
82.5°	122.7	170.6	223.0	254.4	266.4
85°	82.3	131.7	184.1	217.0	229.0
87.5°	52.4	100.3	151.2	185.6	196.1
90°	23.9	71.8	122.7	157.2	167.6
92.5°	21.0	64.4	116.7	149.7	160.1
95°	19.5	58.4	109.3	142.2	152.7
97.5°	18.0	53.9	103.3	134.7	145.2
100°	16.5	47.9	95.8	127.2	136.2
102.5°	15.0	43.4	89.8	119.7	128.7
105°	13.5	37.4	82.3	112.3	122.7
107.5°	12.0	32.9	76.3	106.3	115.2
110°	10.5	28.4	70.3	98.8	109.3



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	10.5	23.9	64.4	91.3	101.8
115°	9.0	19.5	58.4	85.3	94.3
117.5°	7.5	15.0	52.4	77.8	88.3
120°	7.5	12.0	46.4	71.8	80.8
122.5°	6.0	7.5	40.4	64.4	73.3
125°	6.0	4.5	34.4	58.4	65.9
127.5°	4.5	3.0	28.4	50.9	59.9
130°	4.5	3.0	23.9	44.9	52.4
132.5°	3.0	3.0	18.0	38.9	44.9
135°	3.0	1.5	12.0	31.4	38.9
137.5°	3.0	1.5	7.5	25.4	31.4
140°	1.5	1.5	3.0	19.5	25.4
142.5°	1.5	0.0	0.0	13.5	19.5
145°	1.5	0.0	0.0	7.5	13.5
147.5°	0.0	0.0	0.0	3.0	6.0
150°	0.0	0.0	0.0	0.0	1.5
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	18.20	19.73	18.66	20.17	20.64	19.24	20.78	19.70	21.22	21.68
	3H	19.85	21.25	20.32	21.70	22.20	21.42	22.82	21.89	23.27	23.77
	4H	20.42	21.74	20.91	22.21	22.73	22.38	23.70	22.88	24.17	24.69
	6H	20.80	22.03	21.31	22.51	23.04	23.28	24.51	23.79	24.99	25.52
	8H	20.91	22.08	21.42	22.58	23.12	23.72	24.89	24.23	25.39	25.93
	12H	20.97	22.09	21.49	22.59	23.16	24.17	25.30	24.70	25.80	26.37
4H	2H	18.96	20.28	19.46	20.75	21.27	19.78	21.10	20.27	21.56	22.08
	3H	20.84	21.96	21.35	22.47	23.01	22.17	23.29	22.67	23.80	24.34
	4H	21.55	22.56	22.07	23.09	23.66	23.28	24.30	23.81	24.82	25.40
	6H	22.05	22.95	22.60	23.50	24.09	24.35	25.24	24.89	25.79	26.38
	8H	22.20	23.05	22.75	23.60	24.20	24.87	25.71	25.42	26.26	26.86
	12H	22.30	23.07	22.88	23.64	24.25	25.43	26.19	26.00	26.77	27.37
8H	4H	22.03	22.87	22.58	23.42	24.02	23.54	24.38	24.09	24.93	25.54
	6H	22.69	23.40	23.27	23.99	24.60	24.76	25.47	25.35	26.06	26.67
	8H	22.93	23.57	23.53	24.17	24.79	25.40	26.04	26.00	26.64	27.27
	12H	23.11	23.68	23.71	24.27	24.96	26.12	26.68	26.71	27.27	27.96
12H	4H	22.13	22.89	22.70	23.47	24.07	23.56	24.32	24.13	24.90	25.51
	6H	22.85	23.49	23.45	24.10	24.72	24.81	25.45	25.41	26.06	26.68
	8H	23.17	23.74	23.77	24.33	25.02	25.52	26.09	26.12	26.68	27.37