

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: P243699

Luminaire Tested: S125DRP-H1270D927-X4F0-XX-UDD-D-W

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-2024
Report Number: P243699
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1802-639-56)
Test Lab: INNOVATION CENTER
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S125DRP-H1270D927-X4F0-XX-UDD-D-W
Description: DEFINE 5 DIRECT RECESSED WITH SATIN DROP DIFFUSER.
HIGH PERFORMANCE LIGHT ENGINE
Light Source: (184) 2700K CCT, 90 CRI LEDS
Ballast/Driver: -

Summary

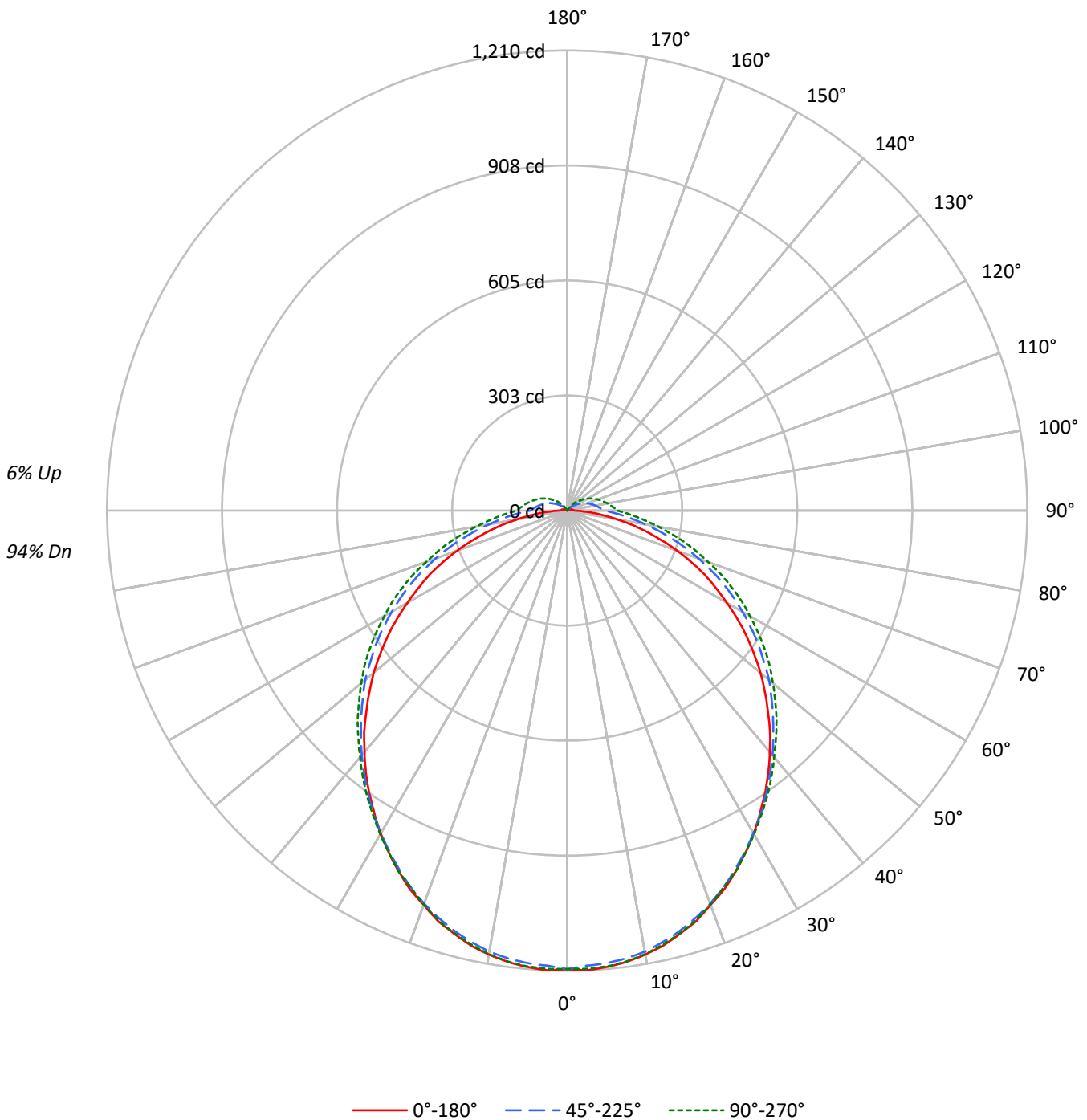
Lumens per Lamp: N/A
Luminaire Lumens: 3743.6 lumens
Efficiency: N/A
Efficacy: 99.3 lumens/watt
Spacing Criteria (0/90/45): 1.21 / 1.21 / 1.34
Luminous Opening: Rectangular w/ Sides (W: 0.39' x L: 3.88' x H: 0.08')
CIE Type: Direct

Input Watts (W): 37.7
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	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°	8569	8569	8569
5°	8578	8400	8428
10°	8524	8258	8239
15°	8421	8062	8004
20°	8279	7844	7735
25°	8132	7592	7471
30°	7949	7336	7182
35°	7753	7085	6924
40°	7555	6842	6665
45°	7346	6599	6453
50°	7160	6398	6229
55°	6926	6150	6022
60°	6642	5880	5760
65°	6413	5597	5504
70°	6034	5248	5170
75°	5524	4838	4874
80°	4918	4394	4500
85°	4379	4110	4283

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 7346 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	114.1	3.0
10°-20°	324.1	8.7
20°-30°	482.5	12.9
30°-40°	571.6	15.3
40°-50°	591.4	15.8
50°-60°	545.5	14.6
60°-70°	440.8	11.8
70°-80°	294.6	7.9
80°-90°	151.9	4.1
90°-100°	85.2	2.3
100°-110°	63.2	1.7
110°-120°	42.1	1.1
120°-130°	23.5	0.6
130°-140°	10.6	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°	920.7	24.6
0°-40°	1492.3	39.9
0°-60°	2629.3	70.2
0°-90°	3516.7	93.9
90°-120°	190.6	5.1
90°-150°	226.9	6.1
90°-180°	227.0	6.1
0°-180°	3743.6	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1206	1206	1206	1206	1206	
5°	1205	1203	1194	1203	1203	114
15°	1151	1154	1144	1151	1150	325
25°	1047	1052	1043	1049	1047	482
35°	907	914	912	916	917	567
45°	747	759	766	778	779	577
55°	576	594	614	628	634	515
65°	399	422	451	471	477	393
75°	217	250	285	310	319	231
85°	67	105	146	172	180	69
90°	19	56	97	124	133	13
95°	16	47	86	111	119	12
105°	11	30	66	89	97	12
115°	8	16	46	67	75	7
125°	4	4	27	44	51	4
135°	2	2	10	26	30	2
145°	1	0	0	7	10	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°	1205.7	1205.7	1205.7	1205.7	1205.7
2.5°	1210.1	1206.8	1197.9	1206.8	1205.7
5°	1204.6	1203.4	1194.5	1203.4	1203.4
7.5°	1196.8	1195.6	1187.8	1196.8	1195.6
10°	1185.6	1185.6	1177.8	1184.5	1184.5
12.5°	1171.1	1171.1	1162.2	1170.0	1167.8
15°	1151.1	1154.4	1144.4	1151.1	1150.0
17.5°	1131.0	1131.0	1123.2	1128.8	1128.8
20°	1103.2	1107.6	1099.8	1105.4	1102.0
22.5°	1078.6	1080.9	1073.1	1078.6	1073.1
25°	1047.4	1051.9	1043.0	1048.6	1047.4
27.5°	1015.1	1018.5	1011.8	1018.5	1015.1
30°	980.6	983.9	979.5	983.9	982.8
32.5°	943.8	950.5	947.2	950.5	949.4
35°	907.0	913.7	911.5	916.0	917.1
37.5°	869.2	875.8	875.8	881.4	882.5
40°	829.0	838.0	840.2	848.0	846.9
42.5°	790.0	799.0	802.3	812.3	812.3
45°	746.6	758.8	765.5	777.8	778.9
47.5°	705.4	718.7	728.8	739.9	742.1
50°	664.1	676.4	693.1	704.2	706.5
52.5°	619.5	635.1	651.9	667.5	671.9
55°	576.1	593.9	614.0	628.5	634.0
57.5°	531.5	550.5	572.7	590.6	595.0
60°	484.7	507.0	532.6	550.5	554.9
62.5°	441.3	465.8	492.5	511.5	518.1
65°	398.9	422.3	451.3	471.3	476.9
67.5°	353.2	378.9	408.9	431.2	436.8
70°	307.5	335.4	367.7	388.9	394.5
72.5°	260.7	291.9	326.5	349.9	356.6
75°	217.3	249.6	285.3	309.8	318.7
77.5°	176.1	209.5	245.1	270.8	278.6
80°	134.8	169.4	208.4	235.1	242.9
82.5°	98.1	134.8	174.9	201.7	209.5
85°	66.9	104.7	146.0	171.6	180.5
87.5°	41.2	78.0	120.3	146.0	154.9
90°	18.9	55.7	96.9	123.7	132.6
92.5°	16.7	51.3	91.4	118.1	125.9
95°	15.6	46.8	85.8	111.4	119.2
97.5°	14.5	42.3	80.2	105.9	113.7
100°	13.4	37.9	75.8	100.3	108.1
102.5°	12.3	34.5	70.2	94.7	101.4
105°	11.1	30.1	65.7	89.1	96.9
107.5°	10.0	25.6	61.3	83.6	91.4
110°	8.9	22.3	55.7	78.0	85.8



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	7.8	18.9	51.3	72.4	80.2
115°	7.8	15.6	45.7	66.9	74.7
117.5°	6.7	12.3	40.1	61.3	69.1
120°	5.6	8.9	35.7	55.7	63.5
122.5°	5.6	6.7	31.2	50.1	57.9
125°	4.5	4.5	26.7	43.5	51.3
127.5°	4.5	3.3	22.3	39.0	44.6
130°	3.3	2.2	18.9	34.5	40.1
132.5°	3.3	2.2	14.5	30.1	35.7
135°	2.2	2.2	10.0	25.6	30.1
137.5°	2.2	1.1	6.7	20.1	25.6
140°	1.1	1.1	2.2	15.6	20.1
142.5°	1.1	1.1	1.1	11.1	15.6
145°	1.1	0.0	0.0	6.7	10.0
147.5°	1.1	0.0	0.0	2.2	5.6
150°	0.0	0.0	0.0	0.0	1.1
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	17.38	18.91	17.84	19.35	19.81	18.47	20.00	18.92	20.44	20.90
	3H	19.03	20.42	19.50	20.87	21.38	20.63	22.03	21.10	22.47	22.98
	4H	19.60	20.92	20.09	21.38	21.90	21.59	22.91	22.08	23.38	23.90
	6H	19.98	21.21	20.49	21.69	22.22	22.50	23.72	23.00	24.20	24.74
	8H	20.09	21.26	20.61	21.77	22.31	22.93	24.10	23.44	24.60	25.15
	12H	20.15	21.28	20.68	21.78	22.35	23.38	24.50	23.90	25.00	25.57
4H	2H	18.14	19.46	18.63	19.93	20.45	18.99	20.31	19.49	20.78	21.30
	3H	20.02	21.14	20.53	21.65	22.19	21.38	22.49	21.88	23.00	23.55
	4H	20.73	21.75	21.25	22.27	22.84	22.49	23.51	23.01	24.03	24.60
	6H	21.24	22.14	21.79	22.69	23.28	23.56	24.45	24.10	25.00	25.59
	8H	21.39	22.24	21.94	22.78	23.39	24.07	24.91	24.62	25.46	26.06
	12H	21.50	22.26	22.07	22.84	23.44	24.62	25.38	25.19	25.96	26.57
8H	4H	21.21	22.05	21.76	22.60	23.20	22.74	23.59	23.29	24.13	24.74
	6H	21.88	22.59	22.46	23.18	23.79	23.97	24.68	24.55	25.27	25.88
	8H	22.12	22.76	22.71	23.36	23.98	24.60	25.24	25.20	25.84	26.46
	12H	22.30	22.87	22.90	23.46	24.15	25.31	25.88	25.91	26.47	27.16
12H	4H	21.31	22.07	21.88	22.65	23.26	22.76	23.52	23.33	24.10	24.71
	6H	22.04	22.68	22.63	23.28	23.90	24.01	24.65	24.61	25.26	25.88
	8H	22.36	22.93	22.95	23.52	24.20	24.72	25.29	25.31	25.88	26.56