

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: P243723

Luminaire Tested: S125DRP-H1270D935-X4F0-XX-UDD-D-W

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-2024
Report Number: P243723
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-H1270D935-X4F0-XX-UDD-D-W
Description: DEFINE 5 DIRECT RECESSED WITH SATIN DROP DIFFUSER.
HIGH PERFORMANCE LIGHT ENGINE
Light Source: (184) 3500K CCT, 90 CRI LEDS
Ballast/Driver: -

Summary

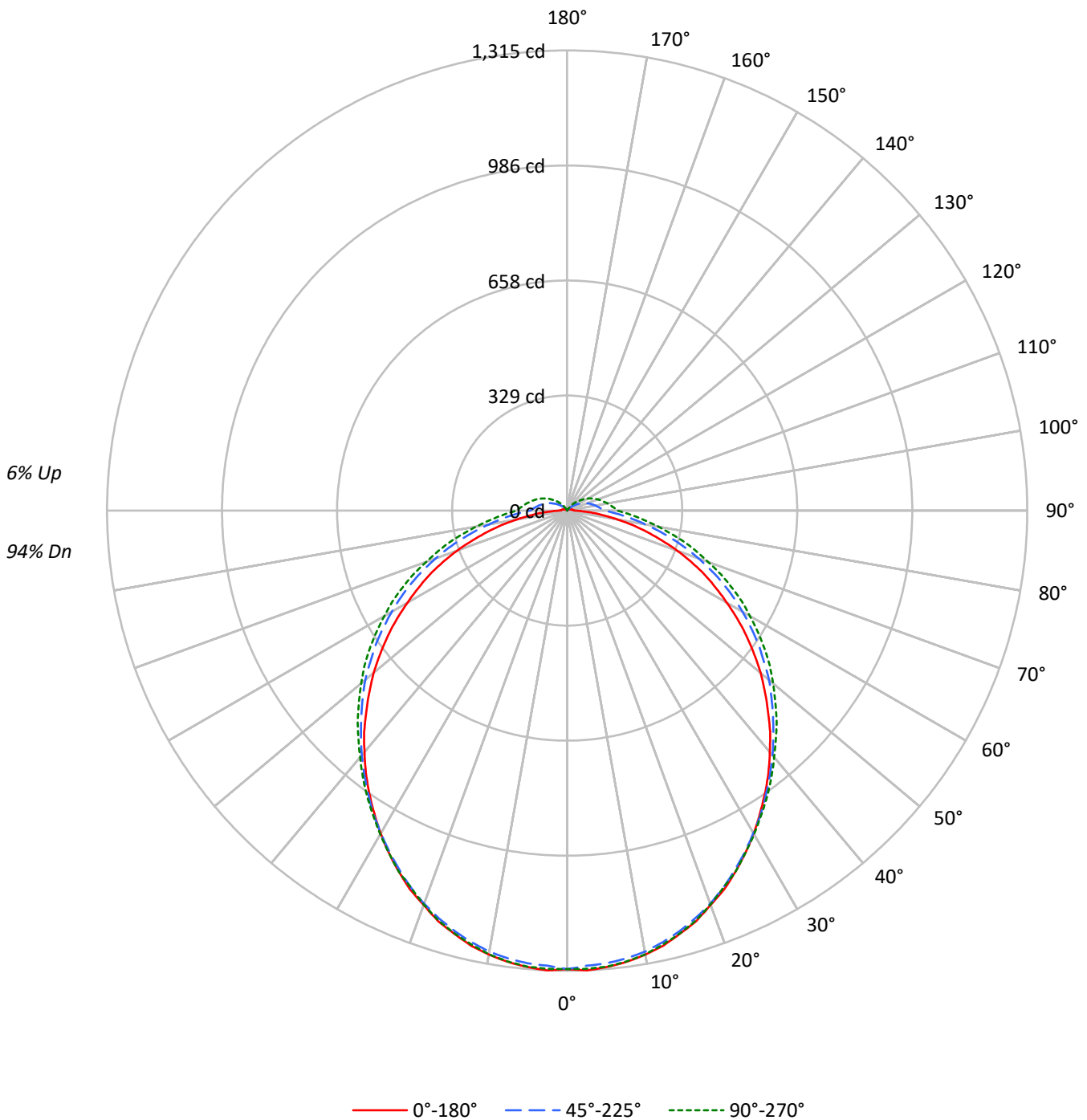
Lumens per Lamp: N/A
Luminaire Lumens: 4068.8 lumens
Efficiency: N/A
Efficacy: 107.9 lumens/watt
Spacing Criteria (0/90/45): 1.21 / 1.22 / 1.34
Luminous Opening: Rectangular w/ Sides (W: 0.39' x L: 3.88' x H: 0.08')
CIE Type: Direct

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	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°	9313	9313	9313
5°	9323	9130	9161
10°	9265	8976	8955
15°	9153	8762	8700
20°	8998	8526	8407
25°	8839	8251	8120
30°	8640	7973	7806
35°	8426	7701	7524
40°	8212	7437	7244
45°	7984	7172	7014
50°	7782	6954	6770
55°	7527	6684	6546
60°	7219	6392	6261
65°	6971	6084	5982
70°	6559	5705	5618
75°	6004	5257	5297
80°	5344	4776	4891
85°	4759	4467	4655

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 7984 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	124.0	3.0
10°-20°	352.3	8.7
20°-30°	524.4	12.9
30°-40°	621.3	15.3
40°-50°	642.8	15.8
50°-60°	592.9	14.6
60°-70°	479.1	11.8
70°-80°	320.2	7.9
80°-90°	165.2	4.1
90°-100°	92.6	2.3
100°-110°	68.7	1.7
110°-120°	45.8	1.1
120°-130°	25.6	0.6
130°-140°	11.5	0.3
140°-150°	2.4	0.1
150°-160°	0.0	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-30°	1000.7	24.6
0°-40°	1622.0	39.9
0°-60°	2857.7	70.2
0°-90°	3822.2	93.9
90°-120°	207.1	5.1
90°-150°	246.6	6.1
90°-180°	247.0	6.1
0°-180°	4068.8	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1310	1310	1310	1310	1310	
5°	1309	1308	1298	1308	1308	124
15°	1251	1255	1244	1251	1250	353
25°	1138	1143	1134	1140	1138	524
35°	986	993	991	996	997	617
45°	811	825	832	845	847	627
55°	626	646	667	683	689	559
65°	434	459	490	512	518	428
75°	236	271	310	337	346	251
85°	73	114	159	186	196	75
90°	21	61	105	134	144	14
95°	17	51	93	121	130	13
105°	12	33	72	97	105	13
115°	8	17	50	73	81	8
125°	5	5	29	47	56	5
135°	2	2	11	28	33	2
145°	1	0	0	7	11	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°	1310.4	1310.4	1310.4	1310.4	1310.4
2.5°	1315.3	1311.6	1301.9	1311.6	1310.4
5°	1309.2	1308.0	1298.3	1308.0	1308.0
7.5°	1300.7	1299.5	1291.0	1300.7	1299.5
10°	1288.6	1288.6	1280.1	1287.4	1287.4
12.5°	1272.9	1272.9	1263.2	1271.7	1269.2
15°	1251.1	1254.7	1243.8	1251.1	1249.9
17.5°	1229.3	1229.3	1220.8	1226.8	1226.8
20°	1199.0	1203.8	1195.4	1201.4	1197.8
22.5°	1172.3	1174.8	1166.3	1172.3	1166.3
25°	1138.4	1143.3	1133.6	1139.6	1138.4
27.5°	1103.3	1106.9	1099.7	1106.9	1103.3
30°	1065.8	1069.4	1064.6	1069.4	1068.2
32.5°	1025.8	1033.1	1029.4	1033.1	1031.9
35°	985.8	993.1	990.7	995.5	996.7
37.5°	944.7	951.9	951.9	958.0	959.2
40°	901.1	910.7	913.2	921.6	920.4
42.5°	858.7	868.4	872.0	882.9	882.9
45°	811.4	824.8	832.0	845.3	846.6
47.5°	766.6	781.2	792.1	804.2	806.6
50°	721.8	735.1	753.3	765.4	767.8
52.5°	673.4	690.3	708.5	725.4	730.3
55°	626.1	645.5	667.3	683.1	689.1
57.5°	577.7	598.3	622.5	641.9	646.7
60°	526.8	551.0	578.9	598.3	603.1
62.5°	479.6	506.2	535.3	555.9	563.2
65°	433.6	459.0	490.5	512.3	518.3
67.5°	383.9	411.8	444.5	468.7	474.8
70°	334.3	364.5	399.7	422.7	428.7
72.5°	283.4	317.3	354.9	380.3	387.6
75°	236.2	271.3	310.0	336.7	346.4
77.5°	191.4	227.7	266.4	294.3	302.8
80°	146.5	184.1	226.5	255.5	264.0
82.5°	106.6	146.5	190.1	219.2	227.7
85°	72.7	113.8	158.7	186.5	196.2
87.5°	44.8	84.8	130.8	158.7	168.3
90°	20.6	60.6	105.4	134.4	144.1
92.5°	18.2	55.7	99.3	128.4	136.9
95°	17.0	50.9	93.3	121.1	129.6
97.5°	15.7	46.0	87.2	115.1	123.5
100°	14.5	41.2	82.4	109.0	117.5
102.5°	13.3	37.5	76.3	102.9	110.2
105°	12.1	32.7	71.5	96.9	105.4
107.5°	10.9	27.9	66.6	90.8	99.3
110°	9.7	24.2	60.6	84.8	93.3



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	8.5	20.6	55.7	78.7	87.2
115°	8.5	17.0	49.7	72.7	81.1
117.5°	7.3	13.3	43.6	66.6	75.1
120°	6.1	9.7	38.8	60.6	69.0
122.5°	6.1	7.3	33.9	54.5	63.0
125°	4.8	4.8	29.1	47.2	55.7
127.5°	4.8	3.6	24.2	42.4	48.4
130°	3.6	2.4	20.6	37.5	43.6
132.5°	3.6	2.4	15.7	32.7	38.8
135°	2.4	2.4	10.9	27.9	32.7
137.5°	2.4	1.2	7.3	21.8	27.9
140°	1.2	1.2	2.4	17.0	21.8
142.5°	1.2	1.2	1.2	12.1	17.0
145°	1.2	0.0	0.0	7.3	10.9
147.5°	1.2	0.0	0.0	2.4	6.1
150°	0.0	0.0	0.0	0.0	1.2
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	17.67	19.20	18.12	19.64	20.10	18.76	20.29	19.21	20.73	21.19
	3H	19.32	20.71	19.79	21.16	21.66	20.92	22.31	21.39	22.76	23.27
	4H	19.89	21.20	20.38	21.67	22.19	21.88	23.20	22.37	23.67	24.19
	6H	20.27	21.50	20.78	21.98	22.51	22.79	24.01	23.29	24.49	25.03
	8H	20.38	21.55	20.89	22.06	22.60	23.22	24.39	23.73	24.89	25.43
	12H	20.44	21.57	20.96	22.06	22.64	23.67	24.79	24.19	25.29	25.86
4H	2H	18.43	19.75	18.92	20.22	20.74	19.28	20.60	19.78	21.07	21.59
	3H	20.31	21.43	20.82	21.94	22.48	21.67	22.78	22.17	23.29	23.84
	4H	21.02	22.04	21.54	22.56	23.13	22.78	23.80	23.30	24.32	24.89
	6H	21.53	22.43	22.07	22.98	23.57	23.85	24.74	24.39	25.29	25.88
	8H	21.68	22.53	22.23	23.07	23.68	24.36	25.20	24.91	25.75	26.35
	12H	21.79	22.55	22.36	23.13	23.73	24.91	25.67	25.48	26.25	26.86
8H	4H	21.50	22.34	22.05	22.89	23.49	23.03	23.88	23.58	24.42	25.03
	6H	22.17	22.88	22.75	23.47	24.08	24.26	24.97	24.84	25.56	26.17
	8H	22.41	23.05	23.00	23.65	24.27	24.89	25.53	25.49	26.13	26.75
	12H	22.59	23.16	23.19	23.75	24.44	25.60	26.17	26.19	26.76	27.45
12H	4H	21.60	22.36	22.17	22.94	23.54	23.05	23.81	23.62	24.39	25.00
	6H	22.33	22.97	22.92	23.57	24.19	24.30	24.94	24.90	25.55	26.17
	8H	22.65	23.22	23.24	23.81	24.49	25.01	25.58	25.60	26.17	26.85