

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: P243727

Luminaire Tested: S125DRP-H1090D940-X4F0-XX-UDD-D-W

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-2024
Report Number: P243727
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-H1090D940-X4F0-XX-UDD-D-W
Description: DEFINE 5 DIRECT RECESSED WITH SATIN DROP DIFFUSER.
HIGH PERFORMANCE LIGHT ENGINE
Light Source: (184) 4000K CCT, 90 CRI LEDS
Ballast/Driver: -

Summary

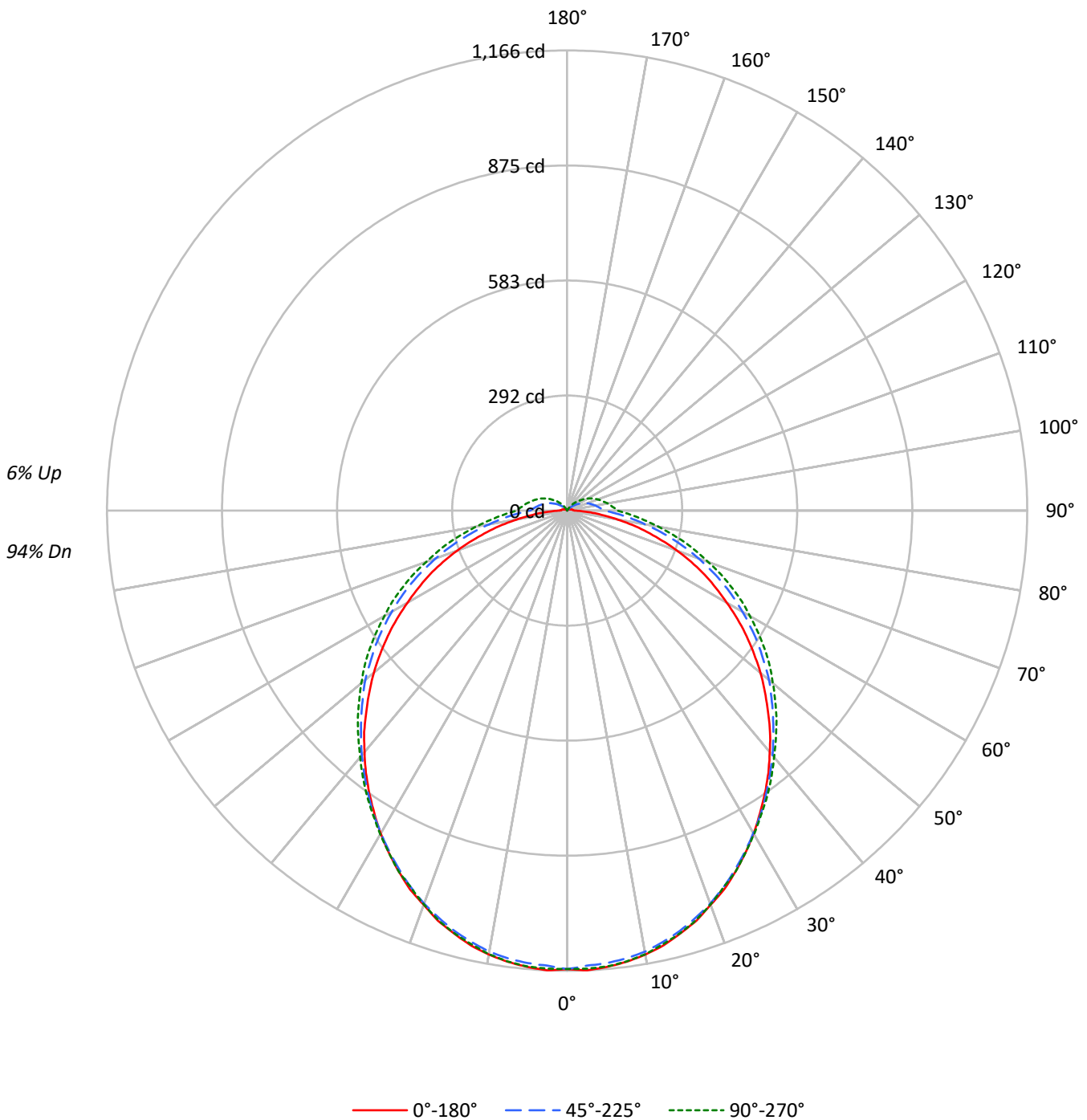
Lumens per Lamp: N/A
Luminaire Lumens: 3607.2 lumens
Efficiency: N/A
Efficacy: 114.5 lumens/watt
Spacing Criteria (0/90/45): 1.21 / 1.21 / 1.34
Luminous Opening: Rectangular w/ Sides (W: 0.39' x L: 3.88' x H: 0.08')
CIE Type: Direct

Input Watts (W): 31.5
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°	8257	8257	8257
5°	8265	8094	8122
10°	8214	7958	7939
15°	8114	7768	7713
20°	7978	7559	7453
25°	7836	7315	7199
30°	7660	7068	6920
35°	7471	6827	6671
40°	7280	6593	6422
45°	7079	6359	6218
50°	6899	6165	6002
55°	6673	5926	5803
60°	6401	5666	5551
65°	6180	5394	5303
70°	5814	5057	4981
75°	5323	4662	4696
80°	4739	4234	4337
85°	4216	3961	4126

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 7079 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	109.9	3.0
10°-20°	312.3	8.7
20°-30°	464.9	12.9
30°-40°	550.8	15.3
40°-50°	569.9	15.8
50°-60°	525.6	14.6
60°-70°	424.8	11.8
70°-80°	283.8	7.9
80°-90°	146.4	4.1
90°-100°	82.1	2.3
100°-110°	60.9	1.7
110°-120°	40.6	1.1
120°-130°	22.7	0.6
130°-140°	10.2	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°	887.2	24.6
0°-40°	1438.0	39.9
0°-60°	2533.5	70.2
0°-90°	3388.6	93.9
90°-120°	183.6	5.1
90°-150°	218.6	6.1
90°-180°	219.0	6.1
0°-180°	3607.2	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1162	1162	1162	1162	1162	
5°	1161	1160	1151	1160	1160	110
15°	1109	1112	1103	1109	1108	313
25°	1009	1014	1005	1010	1009	465
35°	874	880	878	883	884	547
45°	719	731	738	749	750	556
55°	555	572	592	606	611	496
65°	384	407	435	454	460	379
75°	209	240	275	298	307	222
85°	64	101	141	165	174	66
90°	18	54	93	119	128	13
95°	15	45	83	107	115	12
105°	11	29	63	86	93	11
115°	8	15	44	64	72	7
125°	4	4	26	42	49	4
135°	2	2	10	25	29	2
145°	1	0	0	6	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°	1161.8	1161.8	1161.8	1161.8	1161.8
2.5°	1166.0	1162.8	1154.2	1162.8	1161.8
5°	1160.7	1159.6	1151.0	1159.6	1159.6
7.5°	1153.2	1152.1	1144.6	1153.2	1152.1
10°	1142.4	1142.4	1134.9	1141.4	1141.4
12.5°	1128.5	1128.5	1119.9	1127.4	1125.2
15°	1109.1	1112.4	1102.7	1109.1	1108.1
17.5°	1089.8	1089.8	1082.3	1087.7	1087.7
20°	1063.0	1067.3	1059.8	1065.1	1061.9
22.5°	1039.4	1041.5	1034.0	1039.4	1034.0
25°	1009.3	1013.6	1005.0	1010.4	1009.3
27.5°	978.1	981.4	974.9	981.4	978.1
30°	944.9	948.1	943.8	948.1	947.0
32.5°	909.4	915.9	912.7	915.9	914.8
35°	874.0	880.4	878.3	882.6	883.7
37.5°	837.5	843.9	843.9	849.3	850.4
40°	798.8	807.4	809.6	817.1	816.0
42.5°	761.3	769.8	773.1	782.7	782.7
45°	719.4	731.2	737.6	749.4	750.5
47.5°	679.7	692.5	702.2	712.9	715.1
50°	639.9	651.7	667.8	678.6	680.7
52.5°	597.0	612.0	628.1	643.2	647.4
55°	555.1	572.3	591.6	605.6	610.9
57.5°	512.2	530.4	551.9	569.1	573.4
60°	467.1	488.5	513.2	530.4	534.7
62.5°	425.2	448.8	474.6	492.8	499.3
65°	384.4	406.9	434.9	454.2	459.5
67.5°	340.4	365.1	394.1	415.5	420.9
70°	296.3	323.2	354.3	374.7	380.1
72.5°	251.2	281.3	314.6	337.1	343.6
75°	209.4	240.5	274.9	298.5	307.1
77.5°	169.6	201.9	236.2	260.9	268.4
80°	129.9	163.2	200.8	226.6	234.1
82.5°	94.5	129.9	168.6	194.3	201.9
85°	64.4	100.9	140.7	165.4	173.9
87.5°	39.7	75.2	116.0	140.7	149.2
90°	18.3	53.7	93.4	119.2	127.8
92.5°	16.1	49.4	88.0	113.8	121.3
95°	15.0	45.1	82.7	107.4	114.9
97.5°	14.0	40.8	77.3	102.0	109.5
100°	12.9	36.5	73.0	96.6	104.1
102.5°	11.8	33.3	67.6	91.3	97.7
105°	10.7	29.0	63.3	85.9	93.4
107.5°	9.7	24.7	59.1	80.5	88.0
110°	8.6	21.5	53.7	75.2	82.7



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	7.5	18.3	49.4	69.8	77.3
115°	7.5	15.0	44.0	64.4	71.9
117.5°	6.4	11.8	38.7	59.1	66.6
120°	5.4	8.6	34.4	53.7	61.2
122.5°	5.4	6.4	30.1	48.3	55.8
125°	4.3	4.3	25.8	41.9	49.4
127.5°	4.3	3.2	21.5	37.6	42.9
130°	3.2	2.1	18.3	33.3	38.7
132.5°	3.2	2.1	14.0	29.0	34.4
135°	2.1	2.1	9.7	24.7	29.0
137.5°	2.1	1.1	6.4	19.3	24.7
140°	1.1	1.1	2.1	15.0	19.3
142.5°	1.1	1.1	1.1	10.7	15.0
145°	1.1	0.0	0.0	6.4	9.7
147.5°	1.1	0.0	0.0	2.1	5.4
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	17.25	18.78	17.71	19.22	19.68	18.34	19.87	18.80	20.31	20.77
	3H	18.90	20.29	19.37	20.74	21.25	20.50	21.90	20.97	22.35	22.85
	4H	19.47	20.79	19.96	21.25	21.77	21.47	22.78	21.96	23.25	23.77
	6H	19.85	21.08	20.36	21.56	22.10	22.37	23.59	22.87	24.08	24.61
	8H	19.96	21.13	20.48	21.64	22.18	22.80	23.97	23.31	24.48	25.02
	12H	20.02	21.15	20.55	21.65	22.22	23.25	24.37	23.77	24.87	25.44
4H	2H	18.01	19.33	18.51	19.80	20.32	18.87	20.18	19.36	20.65	21.17
	3H	19.89	21.01	20.40	21.52	22.07	21.25	22.36	21.75	22.88	23.42
	4H	20.60	21.62	21.12	22.14	22.72	22.36	23.38	22.88	23.90	24.47
	6H	21.11	22.01	21.66	22.56	23.15	23.43	24.32	23.97	24.87	25.46
	8H	21.26	22.11	21.81	22.66	23.26	23.94	24.78	24.49	25.33	25.93
	12H	21.37	22.13	21.94	22.71	23.31	24.49	25.26	25.06	25.83	26.44
8H	4H	21.08	21.92	21.63	22.47	23.07	22.61	23.46	23.16	24.01	24.61
	6H	21.75	22.46	22.33	23.05	23.66	23.84	24.55	24.42	25.14	25.75
	8H	21.99	22.63	22.59	23.23	23.85	24.47	25.11	25.07	25.72	26.34
	12H	22.17	22.74	22.77	23.33	24.02	25.18	25.75	25.78	26.34	27.03
12H	4H	21.18	21.94	21.75	22.52	23.13	22.63	23.40	23.20	23.97	24.58
	6H	21.91	22.55	22.51	23.15	23.77	23.89	24.53	24.48	25.13	25.75
	8H	22.23	22.80	22.82	23.39	24.08	24.59	25.16	25.18	25.75	26.44