

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: P242867

Luminaire Tested: S125DRP-S1090D940-X4F0-XX-UDD-D-W

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-2024
Report Number: P242867
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-S1090D940-X4F0-XX-UDD-D-W
Description: DEFINE 5 DIRECT RECESSED WITH SATIN DROP DIFFUSER
STANDARD LIGHT ENGINE
Light Source: (92) 4000K CCT, 90 CRI LEDS
Ballast/Driver: -

Summary

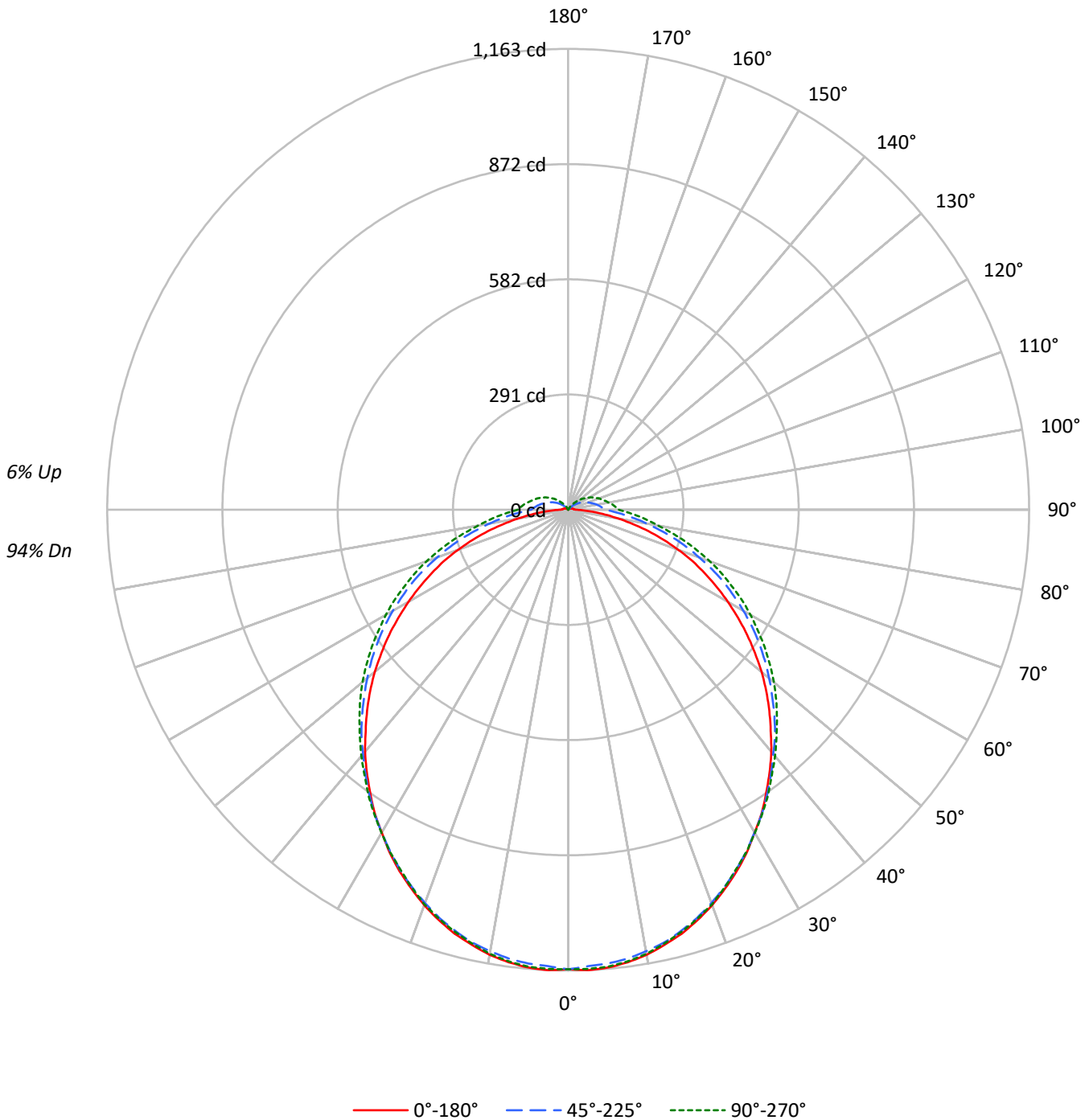
Lumens per Lamp: N/A
Luminaire Lumens: 3593.1 lumens
Efficiency: N/A
Efficacy: 103.3 lumens/watt
Spacing Criteria (0/90/45): 1.21 / 1.21 / 1.34
Luminous Opening: Rectangular w/ Sides (W: 0.39' x L: 3.88' x H: 0.08')
CIE Type: Direct

Input Watts (W): 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	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°	8244	8244	8244
5°	8260	8085	8108
10°	8201	7934	7917
15°	8103	7755	7677
20°	7971	7535	7439
25°	7814	7301	7146
30°	7623	7043	6881
35°	7446	6806	6636
40°	7264	6557	6390
45°	7060	6342	6171
50°	6865	6109	5975
55°	6630	5889	5747
60°	6374	5637	5512
65°	6106	5374	5250
70°	5802	5015	4977
75°	5318	4667	4643
80°	4688	4244	4276
85°	4091	3938	4128

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 7060 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	109.8	3.1
10°-20°	311.6	8.7
20°-30°	463.3	12.9
30°-40°	548.7	15.3
40°-50°	567.3	15.8
50°-60°	522.6	14.5
60°-70°	422.5	11.8
70°-80°	282.7	7.9
80°-90°	146.1	4.1
90°-100°	82.3	2.3
100°-110°	60.7	1.7
110°-120°	40.6	1.1
120°-130°	23.0	0.6
130°-140°	10.1	0.3
140°-150°	2.0	0.1
150°-160°	0.0	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-30°	884.7	24.6
0°-40°	1433.4	39.9
0°-60°	2523.3	70.2
0°-90°	3374.5	93.9
90°-120°	183.6	5.1
90°-150°	218.6	6.1
90°-180°	219.0	6.1
0°-180°	3593.1	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1160	1160	1160	1160	1160	
5°	1160	1158	1150	1159	1158	110
15°	1108	1109	1101	1108	1103	312
25°	1006	1010	1003	1008	1002	463
35°	871	879	876	879	879	545
45°	718	730	736	744	745	554
55°	552	570	588	600	605	493
65°	380	406	433	450	455	377
75°	209	239	275	298	304	222
85°	62	100	140	165	174	65
90°	18	55	93	119	127	13
95°	15	44	83	108	116	12
105°	10	28	62	85	93	11
115°	7	15	44	65	72	7
125°	4	3	26	44	50	4
135°	2	1	9	24	30	2
145°	1	0	0	6	10	0
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°	1159.9	1159.9	1159.9	1159.9	1159.9
2.5°	1163.3	1161.0	1153.1	1161.0	1159.9
5°	1159.9	1157.6	1149.7	1158.8	1157.6
7.5°	1151.9	1150.8	1142.8	1150.8	1149.7
10°	1140.6	1140.6	1131.5	1139.4	1138.3
12.5°	1124.6	1125.8	1119.0	1124.6	1121.2
15°	1107.6	1108.7	1100.8	1107.6	1103.0
17.5°	1086.0	1088.3	1080.3	1086.0	1082.6
20°	1062.1	1064.4	1056.4	1059.8	1059.8
22.5°	1034.8	1039.4	1030.3	1034.8	1031.4
25°	1006.4	1009.8	1003.0	1007.5	1001.8
27.5°	975.7	980.2	972.3	975.7	973.4
30°	940.4	947.2	940.4	942.7	941.6
32.5°	908.6	914.3	909.7	912.0	910.9
35°	871.1	879.0	875.6	879.0	879.0
37.5°	834.7	841.5	840.4	844.9	843.8
40°	797.1	806.2	805.1	809.7	811.9
42.5°	756.2	768.7	772.1	777.8	777.8
45°	717.5	730.1	735.7	743.7	744.8
47.5°	677.7	689.1	698.2	709.6	711.9
50°	636.8	649.3	661.8	674.3	677.7
52.5°	593.6	609.5	625.4	639.1	641.4
55°	551.5	569.7	587.9	600.4	605.0
57.5°	508.3	529.9	550.4	564.0	567.4
60°	465.1	487.8	510.6	527.6	531.0
62.5°	423.0	445.8	470.8	490.1	494.7
65°	379.8	406.0	433.3	450.3	454.9
67.5°	340.0	365.0	392.3	412.8	418.5
70°	295.7	321.8	351.4	373.0	379.8
72.5°	252.4	279.7	312.7	336.6	341.1
75°	209.2	238.8	275.2	297.9	303.6
77.5°	167.2	201.3	235.4	260.4	265.0
80°	128.5	162.6	201.3	226.3	230.8
82.5°	93.2	129.6	169.4	193.3	202.4
85°	62.5	100.1	139.9	164.9	174.0
87.5°	39.8	76.2	114.9	141.0	149.0
90°	18.2	54.6	93.2	119.4	127.4
92.5°	15.9	48.9	88.7	113.7	121.7
95°	14.8	44.3	83.0	108.0	116.0
97.5°	13.6	40.9	78.5	102.3	110.3
100°	12.5	36.4	72.8	96.7	103.5
102.5°	11.4	33.0	68.2	91.0	97.8
105°	10.2	28.4	62.5	85.3	93.2
107.5°	9.1	25.0	58.0	80.7	87.6
110°	8.0	21.6	53.4	75.1	83.0



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	8.0	18.2	48.9	69.4	77.3
115°	6.8	14.8	44.3	64.8	71.6
117.5°	5.7	11.4	39.8	59.1	67.1
120°	5.7	9.1	35.3	54.6	61.4
122.5°	4.5	5.7	30.7	48.9	55.7
125°	4.5	3.4	26.2	44.3	50.0
127.5°	3.4	2.3	21.6	38.7	45.5
130°	3.4	2.3	18.2	34.1	39.8
132.5°	2.3	2.3	13.6	29.6	34.1
135°	2.3	1.1	9.1	23.9	29.6
137.5°	2.3	1.1	5.7	19.3	23.9
140°	1.1	1.1	2.3	14.8	19.3
142.5°	1.1	0.0	0.0	10.2	14.8
145°	1.1	0.0	0.0	5.7	10.2
147.5°	0.0	0.0	0.0	2.3	4.5
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	18.29	19.82	18.75	20.26	20.72
	3H	18.90	20.29	19.37	20.74	21.25	20.47	21.86	20.94	22.31	22.82
	4H	19.47	20.79	19.96	21.25	21.77	21.43	22.75	21.92	23.22	23.73
	6H	19.85	21.07	20.35	21.55	22.09	22.33	23.55	22.83	24.03	24.57
	8H	19.95	21.12	20.47	21.63	22.17	22.76	23.93	23.28	24.44	24.98
	12H	20.01	21.14	20.53	21.63	22.21	23.22	24.34	23.74	24.84	25.41
4H	2H	18.01	19.33	18.50	19.79	20.31	18.82	20.14	19.31	20.61	21.13
	3H	19.89	21.01	20.39	21.52	22.06	21.22	22.33	21.72	22.84	23.39
	4H	20.59	21.61	21.11	22.13	22.71	22.33	23.35	22.85	23.87	24.45
	6H	21.10	22.00	21.64	22.54	23.13	23.39	24.29	23.94	24.84	25.43
	8H	21.25	22.09	21.80	22.64	23.24	23.91	24.75	24.46	25.30	25.91
	12H	21.35	22.11	21.92	22.69	23.30	24.47	25.23	25.04	25.81	26.42
8H	4H	21.07	21.91	21.62	22.46	23.07	22.59	23.43	23.14	23.98	24.58
	6H	21.74	22.45	22.32	23.04	23.65	23.81	24.52	24.39	25.11	25.72
	8H	21.98	22.62	22.57	23.22	23.84	24.45	25.09	25.04	25.69	26.31
	12H	22.16	22.73	22.76	23.32	24.01	25.16	25.73	25.76	26.32	27.01
12H	4H	21.17	21.93	21.74	22.51	23.12	22.61	23.37	23.18	23.95	24.55
	6H	21.90	22.54	22.50	23.14	23.76	23.86	24.50	24.45	25.10	25.72
	8H	22.22	22.79	22.82	23.38	24.07	24.57	25.13	25.16	25.72	26.41