

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: P242788

Luminaire Tested: S125DRP-S1090D930-X4F0-XX-UDD-F-W

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-2024
Report Number: P242788
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1802-639-12)
Test Lab: INNOVATION CENTER
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S125DRP-S1090D930-X4F0-XX-UDD-F-W
Description: DEFINE 5 DIRECT RECESSED WITH SATIN FLUSH DIFFUSER
STANDARD LIGHT ENGINE
Light Source: (92) 3000K CCT, 90 CRI LEDS
Ballast/Driver: -

Summary

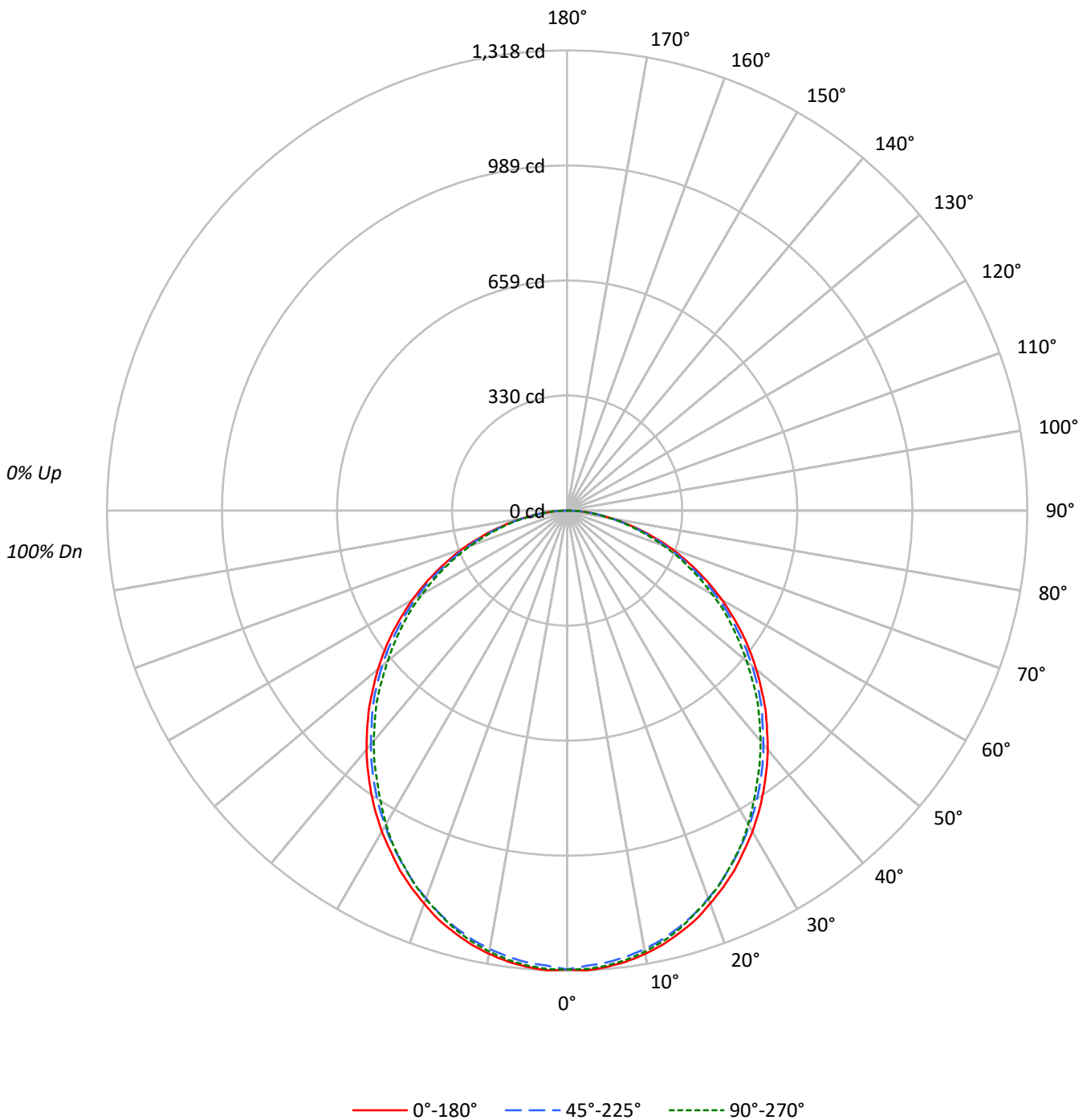
Lumens per Lamp: N/A
Luminaire Lumens: 3420.5 lumens
Efficiency: N/A
Efficacy: 98.3 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.18 / 1.3
Luminous Opening: Rectangular (W 0.39' x L: 3.88' x H: 0')
CIE Type: Direct

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	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100
1	109	104	100	96	106	102	98	95	98	94	92	94	91	89	90	88	86	84
2	99	91	84	79	97	89	83	78	86	80	76	82	78	74	79	76	72	70
3	91	80	72	66	88	79	71	65	76	69	64	73	67	63	70	66	62	59
4	83	71	62	56	81	70	62	55	67	60	55	65	59	54	63	58	53	51
5	76	64	55	48	74	63	54	48	60	53	47	58	52	47	57	51	46	44
6	71	57	49	42	69	56	48	42	55	47	42	53	46	41	51	46	41	39
7	66	52	43	37	64	51	43	37	50	42	37	48	42	37	47	41	36	34
8	61	48	39	33	60	47	39	33	46	38	33	44	38	33	43	37	33	31
9	57	44	36	30	56	43	35	30	42	35	30	41	34	30	40	34	30	28
10	54	40	33	27	52	40	32	27	39	32	27	38	32	27	37	31	27	25

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	9340	9340	9340
5°	9361	9272	9332
10°	9304	9207	9259
15°	9203	9096	9134
20°	9059	8941	8957
25°	8904	8756	8749
30°	8712	8558	8515
35°	8506	8344	8227
40°	8295	8113	7997
45°	8068	7900	7744
50°	7817	7645	7415
55°	7575	7357	7150
60°	7286	7065	6813
65°	6942	6714	6486
70°	6612	6309	6093
75°	6025	5824	5624
80°	5362	5276	5149
85°	4665	4746	4493

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 8068 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	124.0	3.6
10°-20°	350.3	10.2
20°-30°	517.1	15.1
30°-40°	603.3	17.6
40°-50°	606.0	17.7
50°-60°	531.9	15.6
60°-70°	396.2	11.6
70°-80°	226.3	6.6
80°-90°	65.3	1.9
90°-100°	0.0	0.0
100°-110°	0.0	0.0
110°-120°	0.0	0.0
120°-130°	0.0	0.0
130°-140°	0.0	0.0
140°-150°	0.0	0.0
150°-160°	0.0	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-30°	991.4	29.0
0°-40°	1594.8	46.6
0°-60°	2732.7	79.9
0°-90°	3420.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3420.5	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1314	1314	1314	1314	1314	
5°	1312	1310	1300	1309	1308	125
15°	1251	1248	1236	1241	1241	353
25°	1135	1130	1117	1119	1116	522
35°	980	976	962	956	948	613
45°	803	798	786	774	770	618
55°	611	608	594	584	577	546
65°	413	411	399	390	386	409
75°	219	217	212	209	205	234
85°	57	58	58	57	55	66
90°	0	0	0	0	0	

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1314.2	1314.2	1314.2	1314.2	1314.2
2.5°	1318.3	1315.2	1304.8	1315.2	1314.2
5°	1312.1	1310.0	1299.6	1309.0	1308.0
7.5°	1302.8	1300.7	1289.2	1298.6	1297.6
10°	1289.2	1287.2	1275.7	1284.0	1283.0
12.5°	1272.6	1268.4	1258.0	1264.3	1264.3
15°	1250.8	1247.6	1236.2	1241.4	1241.4
17.5°	1227.9	1222.7	1211.3	1217.5	1212.3
20°	1197.7	1195.7	1182.1	1189.4	1184.2
22.5°	1167.6	1163.4	1151.0	1155.1	1152.0
25°	1135.4	1130.2	1116.6	1118.7	1115.6
27.5°	1097.9	1094.8	1081.3	1082.3	1079.2
30°	1061.5	1058.4	1042.8	1040.7	1037.6
32.5°	1022.0	1016.8	1003.3	999.2	992.9
35°	980.4	976.3	961.7	956.5	948.2
37.5°	937.8	932.6	919.1	911.8	906.6
40°	894.1	888.9	874.4	865.0	861.9
42.5°	847.4	843.2	828.6	820.3	815.1
45°	802.7	798.5	786.0	773.5	770.4
47.5°	753.8	754.8	739.2	726.8	719.5
50°	707.0	703.9	691.4	677.9	670.6
52.5°	659.2	657.1	643.6	632.1	623.8
55°	611.3	608.2	593.7	584.3	577.0
57.5°	560.4	559.4	546.9	534.4	531.3
60°	512.6	508.4	497.0	486.6	479.3
62.5°	462.7	459.6	450.2	438.8	433.6
65°	412.8	410.7	399.2	389.9	385.7
67.5°	363.9	359.7	351.4	343.1	341.0
70°	318.2	313.0	303.6	297.4	293.2
72.5°	268.2	265.1	259.9	252.6	248.5
75°	219.4	217.3	212.1	209.0	204.8
77.5°	173.6	172.6	169.5	167.4	164.3
80°	131.0	131.0	128.9	127.9	125.8
82.5°	93.6	91.5	91.5	89.4	89.4
85°	57.2	58.2	58.2	57.2	55.1
87.5°	28.1	28.1	27.0	27.0	25.0
90°	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	19.11	20.73	19.48	21.05	21.36	18.78	20.40	19.15	20.72	21.03
	3H	20.88	22.34	21.26	22.67	23.03	20.52	21.98	20.89	22.31	22.67
	4H	21.54	22.92	21.94	23.26	23.64	21.16	22.54	21.56	22.89	23.26
	6H	22.02	23.29	22.43	23.66	24.05	21.65	22.93	22.06	23.29	23.68
	8H	22.17	23.39	22.60	23.78	24.18	21.81	23.03	22.23	23.42	23.82
	12H	22.28	23.45	22.71	23.83	24.26	21.92	23.09	22.35	23.47	23.90
4H	2H	19.69	21.07	20.09	21.42	21.79	19.43	20.81	19.83	21.16	21.53
	3H	21.69	22.84	22.10	23.24	23.64	21.38	22.54	21.79	22.93	23.33
	4H	22.47	23.52	22.90	23.93	24.37	22.16	23.20	22.59	23.61	24.05
	6H	23.08	23.99	23.53	24.43	24.89	22.77	23.69	23.23	24.13	24.58
	8H	23.29	24.14	23.75	24.58	25.05	22.98	23.84	23.44	24.28	24.74
	12H	23.44	24.21	23.92	24.68	25.15	23.14	23.90	23.62	24.38	24.85
8H	4H	22.76	23.61	23.22	24.06	24.52	22.48	23.34	22.94	23.78	24.24
	6H	23.49	24.20	23.98	24.69	25.16	23.22	23.93	23.71	24.42	24.89
	8H	23.77	24.40	24.28	24.91	25.40	23.50	24.14	24.01	24.65	25.13
	12H	24.00	24.56	24.50	25.05	25.61	23.74	24.30	24.24	24.79	25.35
12H	4H	22.79	23.56	23.27	24.03	24.50	22.52	23.29	23.00	23.76	24.23
	6H	23.54	24.18	24.05	24.69	25.17	23.28	23.92	23.79	24.43	24.91
	8H	23.88	24.44	24.38	24.93	25.49	23.62	24.19	24.13	24.68	25.24