

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: P242844

Luminaire Tested: S125DRP-S1270D830-X4F0-XX-UDD-D-W

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-2024
Report Number: P242844
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-S1270D830-X4F0-XX-UDD-D-W
Description: DEFINE 5 DIRECT RECESSED WITH SATIN DROP DIFFUSER
STANDARD LIGHT ENGINE
Light Source: (92) 3000K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

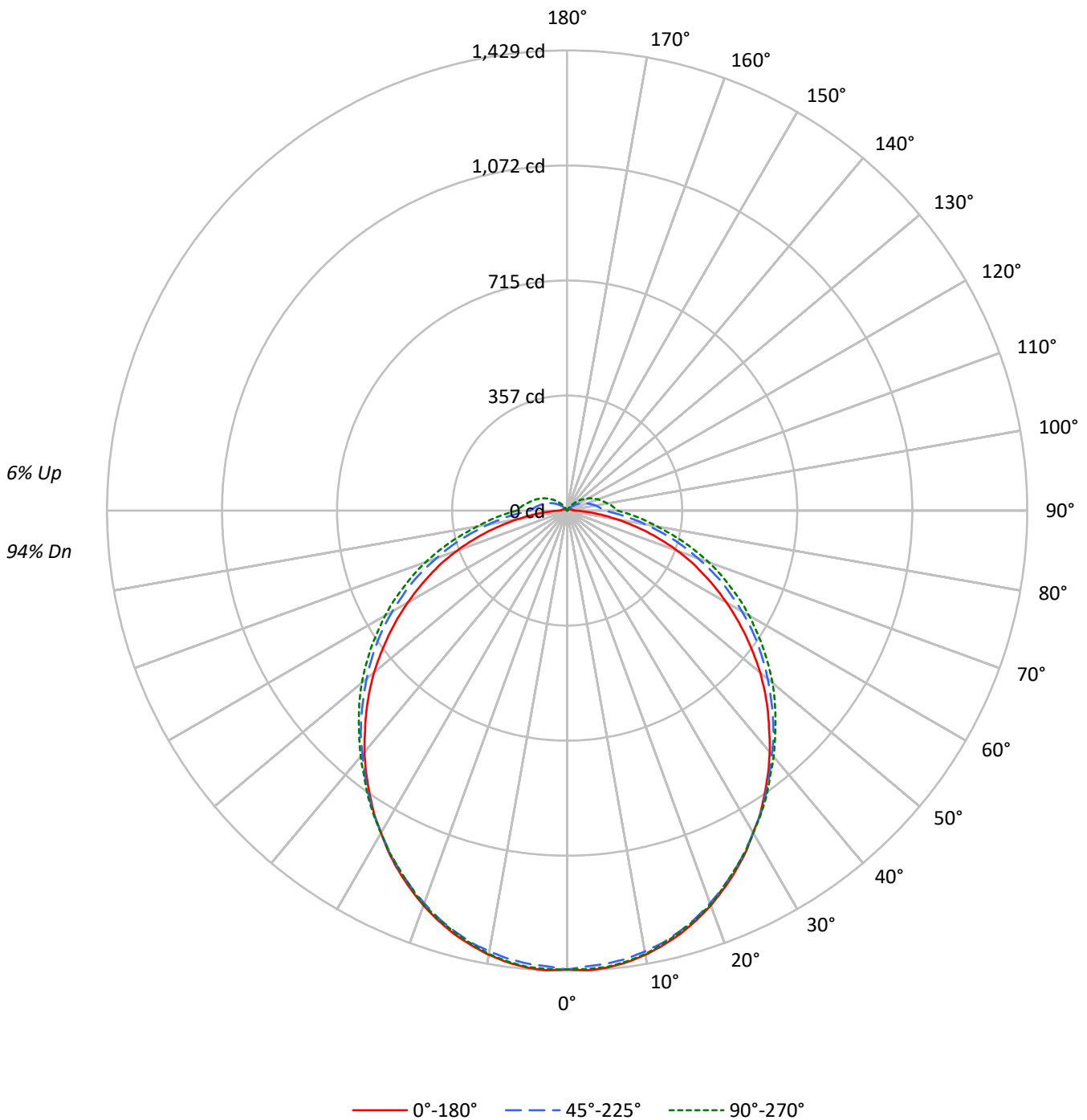
Lumens per Lamp: N/A
Luminaire Lumens: 4414.0 lumens
Efficiency: N/A
Efficacy: 107.4 lumens/watt
Spacing Criteria (0/90/45): 1.21 / 1.21 / 1.34
Luminous Opening: Rectangular w/ Sides (W: 0.39' x L: 3.88' x H: 0.08')
CIE Type: Direct

Input Watts (W): 41.1
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°	10127	10127	10127
5°	10147	9932	9960
10°	10074	9746	9726
15°	9954	9526	9431
20°	9791	9256	9138
25°	9599	8968	8778
30°	9365	8652	8452
35°	9146	8361	8152
40°	8924	8054	7850
45°	8674	7791	7581
50°	8434	7505	7341
55°	8145	7234	7060
60°	7829	6925	6773
65°	7501	6601	6449
70°	7126	6160	6114
75°	6533	5733	5704
80°	5760	5214	5254
85°	5027	4836	5070

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 8674 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	134.8	3.1
10°-20°	382.8	8.7
20°-30°	569.2	12.9
30°-40°	674.1	15.3
40°-50°	696.9	15.8
50°-60°	642.0	14.5
60°-70°	519.0	11.8
70°-80°	347.3	7.9
80°-90°	179.5	4.1
90°-100°	101.1	2.3
100°-110°	74.5	1.7
110°-120°	49.9	1.1
120°-130°	28.3	0.6
130°-140°	12.4	0.3
140°-150°	2.5	0.1
150°-160°	0.0	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-30°	1086.8	24.6
0°-40°	1760.8	39.9
0°-60°	3099.7	70.2
0°-90°	4145.4	93.9
90°-120°	225.5	5.1
90°-150°	268.6	6.1
90°-180°	269.0	6.1
0°-180°	4414.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1425	1425	1425	1425	1425	
5°	1425	1422	1412	1424	1422	135
15°	1361	1362	1352	1361	1355	383
25°	1236	1240	1232	1238	1231	569
35°	1070	1080	1076	1080	1080	670
45°	882	897	904	914	915	680
55°	678	700	722	738	743	606
65°	467	499	532	553	559	463
75°	257	293	338	366	373	272
85°	77	123	172	203	214	80
90°	22	67	114	147	156	16
95°	18	54	102	133	142	14
105°	13	35	77	105	114	13
115°	8	18	54	80	88	8
125°	6	4	32	54	62	5
135°	3	1	11	29	36	2
145°	1	0	0	7	13	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°	1424.9	1424.9	1424.9	1424.9	1424.9
2.5°	1429.0	1426.3	1416.5	1426.3	1424.9
5°	1424.9	1422.1	1412.3	1423.5	1422.1
7.5°	1415.1	1413.7	1403.9	1413.7	1412.3
10°	1401.1	1401.1	1389.9	1399.7	1398.3
12.5°	1381.6	1383.0	1374.6	1381.6	1377.4
15°	1360.6	1362.0	1352.2	1360.6	1355.0
17.5°	1334.1	1336.9	1327.1	1334.1	1329.9
20°	1304.7	1307.5	1297.7	1301.9	1301.9
22.5°	1271.2	1276.8	1265.6	1271.2	1267.0
25°	1236.3	1240.5	1232.1	1237.7	1230.7
27.5°	1198.6	1204.1	1194.4	1198.6	1195.8
30°	1155.3	1163.6	1155.3	1158.0	1156.7
32.5°	1116.1	1123.1	1117.5	1120.3	1118.9
35°	1070.0	1079.8	1075.6	1079.8	1079.8
37.5°	1025.3	1033.7	1032.3	1037.9	1036.5
40°	979.2	990.4	989.0	994.6	997.4
42.5°	929.0	944.3	948.5	955.5	955.5
45°	881.5	896.8	903.8	913.6	915.0
47.5°	832.6	846.5	857.7	871.7	874.5
50°	782.3	797.6	813.0	828.4	832.6
52.5°	729.2	748.7	768.3	785.1	787.9
55°	677.5	699.9	722.2	737.6	743.2
57.5°	624.4	651.0	676.1	692.9	697.1
60°	571.3	599.3	627.2	648.2	652.4
62.5°	519.7	547.6	578.3	602.1	607.7
65°	466.6	498.7	532.2	553.2	558.8
67.5°	417.7	448.4	481.9	507.1	514.1
70°	363.2	395.3	431.6	458.2	466.6
72.5°	310.1	343.6	384.2	413.5	419.1
75°	257.0	293.4	338.1	366.0	373.0
77.5°	205.3	247.3	289.2	319.9	325.5
80°	157.9	199.8	247.3	278.0	283.6
82.5°	114.5	159.2	208.1	237.5	248.7
85°	76.8	122.9	171.8	202.6	213.7
87.5°	48.9	93.6	141.1	173.2	183.0
90°	22.4	67.1	114.5	146.7	156.5
92.5°	19.6	60.1	109.0	139.7	149.5
95°	18.2	54.5	102.0	132.7	142.5
97.5°	16.8	50.3	96.4	125.7	135.5
100°	15.4	44.7	89.4	118.7	127.1
102.5°	14.0	40.5	83.8	111.8	120.1
105°	12.6	34.9	76.8	104.8	114.5
107.5°	11.2	30.7	71.2	99.2	107.6
110°	9.8	26.5	65.7	92.2	102.0



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	9.8	22.4	60.1	85.2	95.0
115°	8.4	18.2	54.5	79.6	88.0
117.5°	7.0	14.0	48.9	72.6	82.4
120°	7.0	11.2	43.3	67.1	75.4
122.5°	5.6	7.0	37.7	60.1	68.4
125°	5.6	4.2	32.1	54.5	61.5
127.5°	4.2	2.8	26.5	47.5	55.9
130°	4.2	2.8	22.4	41.9	48.9
132.5°	2.8	2.8	16.8	36.3	41.9
135°	2.8	1.4	11.2	29.3	36.3
137.5°	2.8	1.4	7.0	23.7	29.3
140°	1.4	1.4	2.8	18.2	23.7
142.5°	1.4	0.0	0.0	12.6	18.2
145°	1.4	0.0	0.0	7.0	12.6
147.5°	0.0	0.0	0.0	2.8	5.6
150°	0.0	0.0	0.0	0.0	1.4
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	17.96	19.49	18.42	19.93	20.40	19.00	20.54	19.46	20.98	21.44
	3H	19.61	21.01	20.08	21.46	21.96	21.18	22.58	21.65	23.03	23.53
	4H	20.18	21.50	20.67	21.97	22.49	22.15	23.46	22.64	23.93	24.45
	6H	20.56	21.79	21.07	22.27	22.80	23.04	24.27	23.55	24.75	25.28
	8H	20.67	21.84	21.18	22.34	22.88	23.48	24.65	23.99	25.15	25.70
	12H	20.73	21.85	21.25	22.35	22.92	23.94	25.06	24.46	25.56	26.13
4H	2H	18.72	20.04	19.22	20.51	21.03	19.54	20.86	20.03	21.32	21.84
	3H	20.60	21.72	21.11	22.23	22.77	21.93	23.05	22.43	23.56	24.10
	4H	21.31	22.32	21.83	22.85	23.42	23.04	24.06	23.57	24.59	25.16
	6H	21.81	22.71	22.36	23.26	23.85	24.11	25.01	24.65	25.55	26.14
	8H	21.96	22.81	22.52	23.36	23.96	24.63	25.47	25.18	26.02	26.62
	12H	22.07	22.83	22.64	23.41	24.01	25.19	25.95	25.76	26.53	27.13
8H	4H	21.79	22.63	22.34	23.18	23.78	23.30	24.15	23.85	24.69	25.30
	6H	22.45	23.16	23.04	23.75	24.36	24.52	25.23	25.11	25.83	26.43
	8H	22.69	23.33	23.29	23.93	24.55	25.16	25.80	25.76	26.41	27.03
	12H	22.87	23.44	23.47	24.03	24.72	25.88	26.44	26.47	27.04	27.72
12H	4H	21.89	22.65	22.46	23.23	23.83	23.32	24.08	23.89	24.66	25.27
	6H	22.62	23.26	23.21	23.86	24.48	24.57	25.21	25.17	25.82	26.44
	8H	22.93	23.50	23.53	24.09	24.78	25.28	25.85	25.88	26.44	27.13