

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: P243704

Luminaire Tested: S125DRP-H1270D830-X4F0-XX-UDD-D-W

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-2024
Report Number: P243704
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-H1270D830-X4F0-XX-UDD-D-W
Description: DEFINE 5 DIRECT RECESSED WITH SATIN DROP DIFFUSER.
HIGH PERFORMANCE LIGHT ENGINE
Light Source: (184) 3000K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

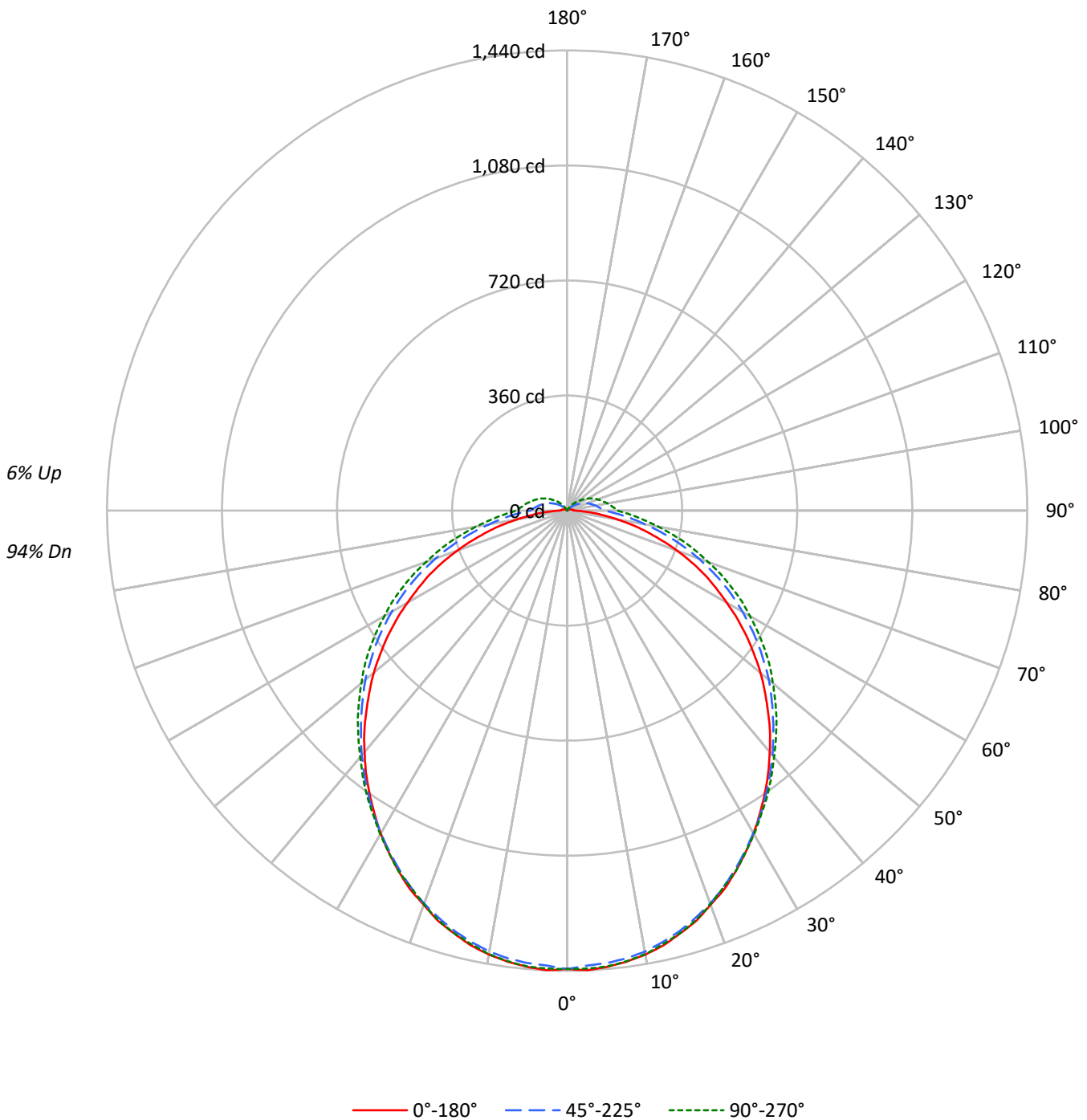
Lumens per Lamp: N/A
Luminaire Lumens: 4454.1 lumens
Efficiency: N/A
Efficacy: 118.1 lumens/watt
Spacing Criteria (0/90/45): 1.21 / 1.22 / 1.34
Luminous Opening: Rectangular w/ Sides (W: 0.39' x L: 3.88' x H: 0.08')
CIE Type: Direct

Input Watts (W): 37.7
Input Voltage (V): 120
Input Current (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°	10195	10195	10195
5°	10206	9995	10029
10°	10142	9826	9802
15°	10019	9592	9523
20°	9850	9334	9203
25°	9676	9032	8889
30°	9458	8728	8545
35°	9225	8430	8237
40°	8990	8141	7930
45°	8741	7852	7678
50°	8519	7612	7411
55°	8240	7317	7166
60°	7903	6997	6854
65°	7630	6659	6548
70°	7179	6244	6150
75°	6571	5755	5799
80°	5851	5227	5354
85°	5204	4889	5096

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 8741 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	135.7	3.0
10°-20°	385.7	8.7
20°-30°	574.1	12.9
30°-40°	680.1	15.3
40°-50°	703.7	15.8
50°-60°	649.0	14.6
60°-70°	524.5	11.8
70°-80°	350.5	7.9
80°-90°	180.8	4.1
90°-100°	101.4	2.3
100°-110°	75.2	1.7
110°-120°	50.1	1.1
120°-130°	28.0	0.6
130°-140°	12.6	0.3
140°-150°	2.7	0.1
150°-160°	0.0	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-30°	1095.5	24.6
0°-40°	1775.6	39.9
0°-60°	3128.3	70.2
0°-90°	4184.1	93.9
90°-120°	226.7	5.1
90°-150°	270.0	6.1
90°-180°	270.0	6.1
0°-180°	4454.1	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1434	1434	1434	1434	1434	
5°	1433	1432	1421	1432	1432	136
15°	1370	1374	1362	1370	1368	386
25°	1246	1252	1241	1248	1246	574
35°	1079	1087	1084	1090	1091	675
45°	888	903	911	925	927	686
55°	685	707	730	748	754	612
65°	475	502	537	561	567	468
75°	258	297	339	369	379	275
85°	80	125	174	204	215	82
90°	22	66	115	147	158	16
95°	19	56	102	133	142	15
105°	13	36	78	106	115	14
115°	9	19	54	80	89	9
125°	5	5	32	52	61	5
135°	3	3	12	30	36	2
145°	1	0	0	8	12	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°	1434.5	1434.5	1434.5	1434.5	1434.5
2.5°	1439.8	1435.8	1425.2	1435.8	1434.5
5°	1433.2	1431.9	1421.3	1431.9	1431.9
7.5°	1423.9	1422.6	1413.3	1423.9	1422.6
10°	1410.6	1410.6	1401.4	1409.3	1409.3
12.5°	1393.4	1393.4	1382.8	1392.1	1389.4
15°	1369.5	1373.5	1361.6	1369.5	1368.2
17.5°	1345.7	1345.7	1336.4	1343.0	1343.0
20°	1312.5	1317.8	1308.6	1315.2	1311.2
22.5°	1283.4	1286.0	1276.7	1283.4	1276.7
25°	1246.2	1251.6	1240.9	1247.6	1246.2
27.5°	1207.8	1211.8	1203.8	1211.8	1207.8
30°	1166.7	1170.7	1165.4	1170.7	1169.4
32.5°	1123.0	1130.9	1126.9	1130.9	1129.6
35°	1079.2	1087.2	1084.5	1089.8	1091.1
37.5°	1034.1	1042.1	1042.1	1048.7	1050.0
40°	986.4	997.0	999.7	1008.9	1007.6
42.5°	940.0	950.6	954.6	966.5	966.5
45°	888.3	902.9	910.8	925.4	926.7
47.5°	839.2	855.1	867.1	880.3	883.0
50°	790.2	804.8	824.6	837.9	840.6
52.5°	737.1	755.7	775.6	794.2	799.5
55°	685.4	706.6	730.5	747.7	754.4
57.5°	632.4	654.9	681.5	702.7	708.0
60°	576.7	603.2	633.7	654.9	660.2
62.5°	525.0	554.2	586.0	608.5	616.5
65°	474.6	502.5	536.9	560.8	567.4
67.5°	420.3	450.8	486.6	513.1	519.7
70°	365.9	399.1	437.5	462.7	469.3
72.5°	310.2	347.4	388.5	416.3	424.3
75°	258.5	297.0	339.4	368.6	379.2
77.5°	209.5	249.2	291.7	322.2	331.4
80°	160.4	201.5	247.9	279.7	289.0
82.5°	116.7	160.4	208.2	240.0	249.2
85°	79.5	124.6	173.7	204.2	214.8
87.5°	49.1	92.8	143.2	173.7	184.3
90°	22.5	66.3	115.3	147.2	157.8
92.5°	19.9	61.0	108.7	140.5	149.8
95°	18.6	55.7	102.1	132.6	141.9
97.5°	17.2	50.4	95.5	126.0	135.2
100°	15.9	45.1	90.2	119.3	128.6
102.5°	14.6	41.1	83.5	112.7	120.6
105°	13.3	35.8	78.2	106.1	115.3
107.5°	11.9	30.5	72.9	99.4	108.7
110°	10.6	26.5	66.3	92.8	102.1



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	9.3	22.5	61.0	86.2	95.5
115°	9.3	18.6	54.4	79.5	88.8
117.5°	8.0	14.6	47.7	72.9	82.2
120°	6.6	10.6	42.4	66.3	75.6
122.5°	6.6	8.0	37.1	59.7	68.9
125°	5.3	5.3	31.8	51.7	61.0
127.5°	5.3	4.0	26.5	46.4	53.0
130°	4.0	2.7	22.5	41.1	47.7
132.5°	4.0	2.7	17.2	35.8	42.4
135°	2.7	2.7	11.9	30.5	35.8
137.5°	2.7	1.3	8.0	23.9	30.5
140°	1.3	1.3	2.7	18.6	23.9
142.5°	1.3	1.3	1.3	13.3	18.6
145°	1.3	0.0	0.0	8.0	11.9
147.5°	1.3	0.0	0.0	2.7	6.6
150°	0.0	0.0	0.0	0.0	1.3
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	17.98	19.51	18.44	19.95	20.42	19.07	20.60	19.53	21.04	21.51
	3H	19.63	21.02	20.10	21.47	21.98	21.24	22.63	21.71	23.08	23.58
	4H	20.20	21.52	20.69	21.99	22.50	22.20	23.52	22.69	23.98	24.50
	6H	20.59	21.81	21.09	22.29	22.83	23.10	24.33	23.60	24.81	25.34
	8H	20.69	21.87	21.21	22.37	22.91	23.53	24.70	24.05	25.21	25.75
	12H	20.76	21.88	21.28	22.38	22.95	23.98	25.11	24.50	25.60	26.18
4H	2H	18.75	20.06	19.24	20.53	21.05	19.60	20.92	20.09	21.38	21.90
	3H	20.63	21.75	21.13	22.26	22.80	21.98	23.10	22.48	23.61	24.15
	4H	21.33	22.35	21.86	22.87	23.45	23.09	24.11	23.61	24.63	25.21
	6H	21.84	22.74	22.39	23.29	23.88	24.16	25.06	24.70	25.60	26.19
	8H	22.00	22.84	22.55	23.39	23.99	24.67	25.52	25.22	26.07	26.67
	12H	22.10	22.86	22.67	23.44	24.05	25.23	25.99	25.80	26.57	27.17
8H	4H	21.81	22.66	22.36	23.20	23.81	23.35	24.19	23.90	24.74	25.34
	6H	22.48	23.19	23.06	23.78	24.39	24.57	25.28	25.15	25.87	26.48
	8H	22.72	23.36	23.32	23.96	24.58	25.21	25.84	25.80	26.45	27.07
	12H	22.91	23.48	23.50	24.07	24.75	25.91	26.48	26.51	27.07	27.76
12H	4H	21.91	22.67	22.48	23.25	23.86	23.37	24.13	23.94	24.71	25.31
	6H	22.64	23.28	23.24	23.89	24.51	24.62	25.26	25.21	25.86	26.48
	8H	22.96	23.53	23.56	24.12	24.81	25.32	25.89	25.92	26.48	27.17