

Scaled data based on original data using  
LM-79-08 Approved Method: Electrical and Photometric Measurements of Solid-State  
Lighting Products

Test Report Prepared for

Cooper Lighting Solutions

(formerly Eaton)

Brand: NEO-RAY

Report Number: P243704

Luminaire Tested: **S125DR-H1270D830-X4F0-XX-UDD-D-W**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
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 (FORMERLY EATON)  
Product Line: NEO-RAY  
Catalog Number: S125DR-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: ELECTRONIC 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

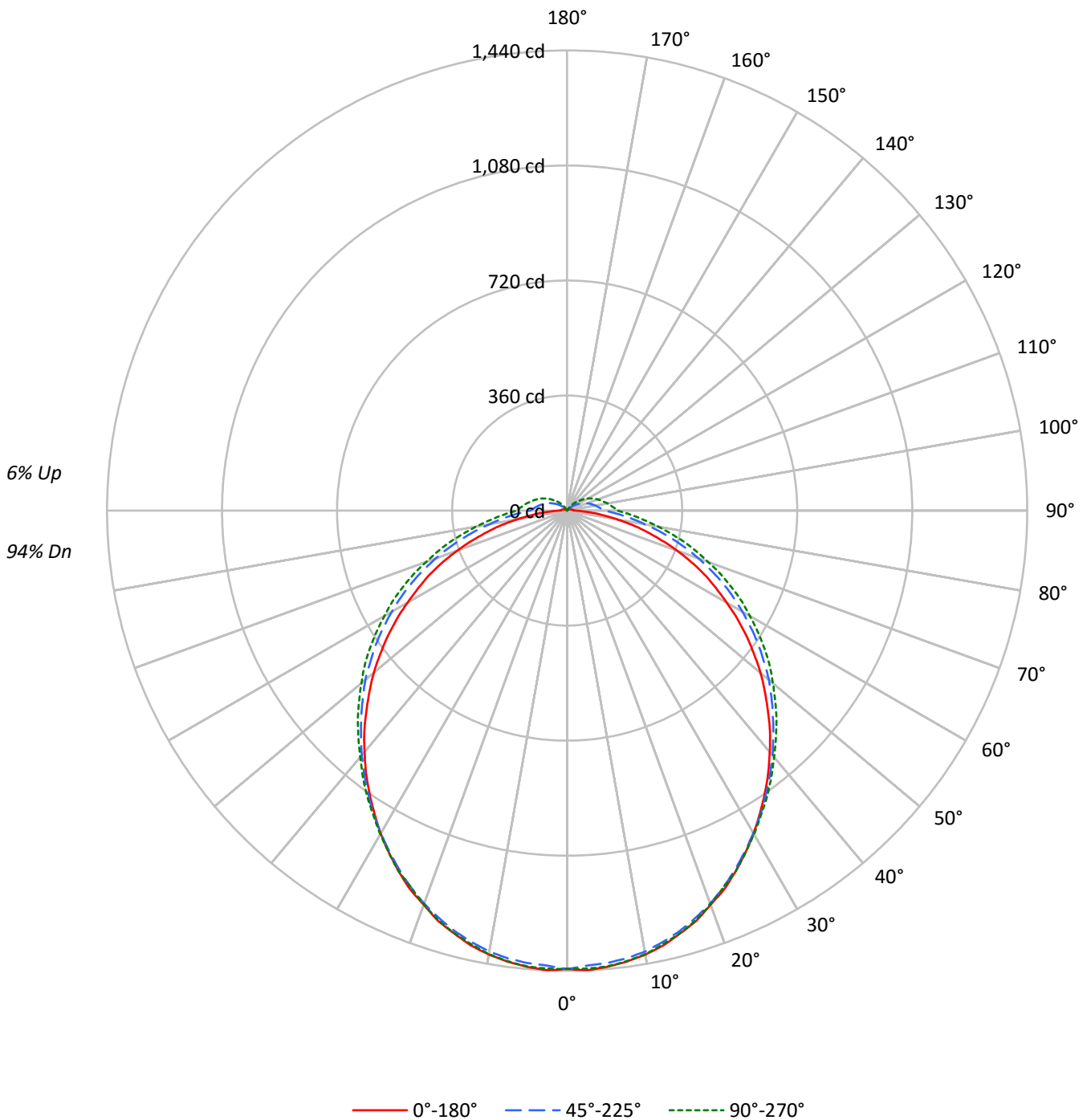
Input Watts (W): 37.7  
Input Voltage (V): 120  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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



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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

(END OF REPORT)