

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: P242843

Luminaire Tested: **S125DR-S1090D830-X4F0-XX-UDD-D-W**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P242843
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 (FORMERLY EATON)
Product Line: NEO-RAY
Catalog Number: S125DR-S1090D830-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: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3797.9 lumens
Efficiency: N/A
Efficacy: 109.1 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

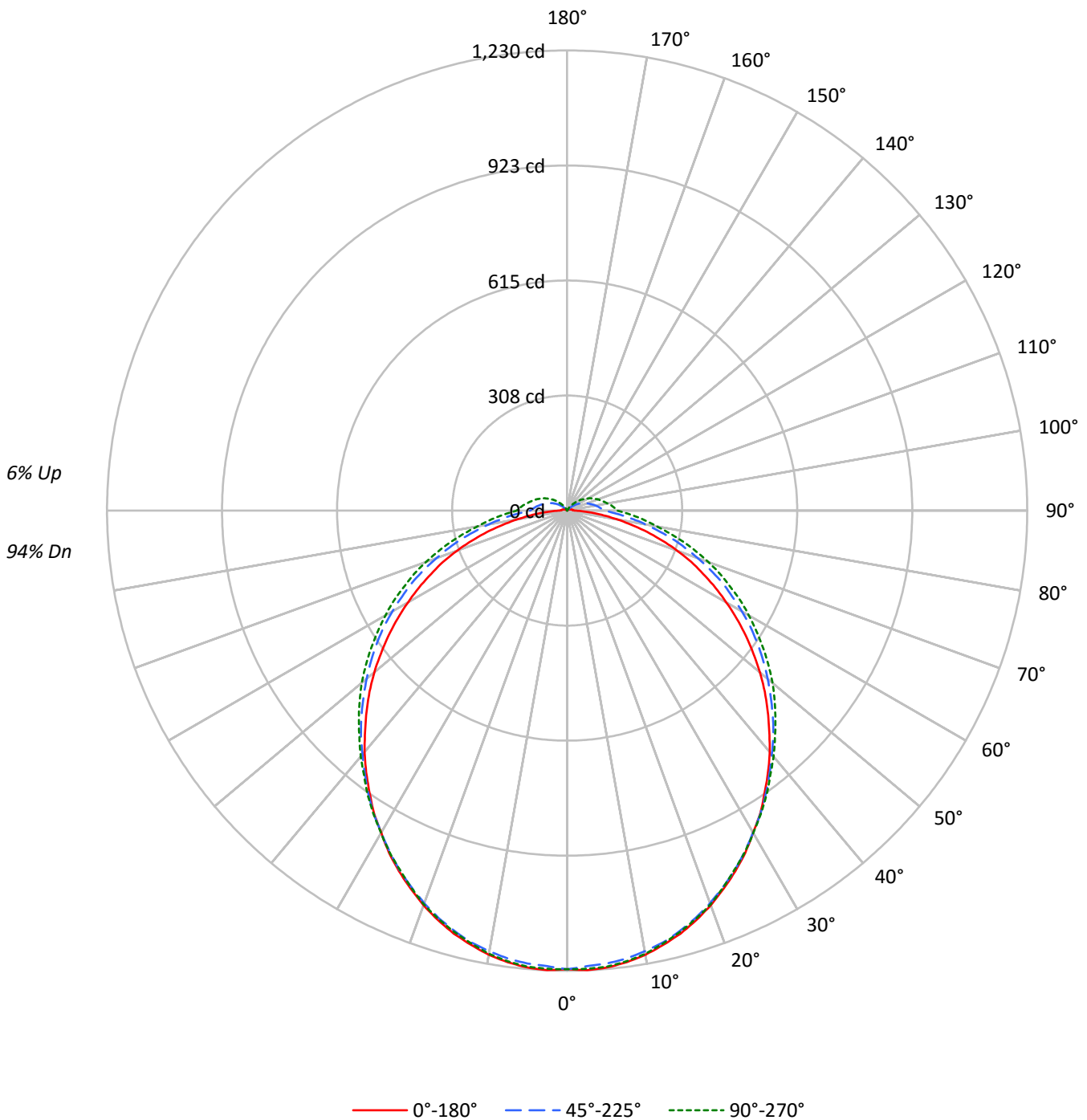
Input Watts (W): 34.8
Input Voltage (V): 120
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



TEST NUMBER: P242843

CATALOG NUMBER: S125DR-S1090D830-X4F0-XX-UDD-D-W

Luminous Intensity Polar Plot





TEST NUMBER: P242843

CATALOG NUMBER: S125DR-S1090D830-X4F0-XX-UDD-D-W

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°	8714	8714	8714
5°	8730	8546	8570
10°	8668	8386	8369
15°	8565	8197	8115
20°	8425	7964	7862
25°	8259	7716	7553
30°	8058	7444	7272
35°	7870	7194	7014
40°	7679	6930	6754
45°	7462	6704	6523
50°	7257	6457	6316
55°	7009	6225	6074
60°	6737	5959	5827
65°	6455	5681	5549
70°	6132	5301	5261
75°	5623	4933	4907
80°	4954	4485	4521
85°	4327	4160	4363



TEST NUMBER: P242843

CATALOG NUMBER: S125DR-S1090D830-X4F0-XX-UDD-D-W

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	116.0	3.1
10°-20°	329.3	8.7
20°-30°	489.7	12.9
30°-40°	580.0	15.3
40°-50°	599.6	15.8
50°-60°	552.4	14.5
60°-70°	446.5	11.8
70°-80°	298.8	7.9
80°-90°	154.4	4.1
90°-100°	87.0	2.3
100°-110°	64.1	1.7
110°-120°	42.9	1.1
120°-130°	24.3	0.6
130°-140°	10.6	0.3
140°-150°	2.1	0.1
150°-160°	0.0	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-30°	935.1	24.6
0°-40°	1515.1	39.9
0°-60°	2667.1	70.2
0°-90°	3566.9	93.9
90°-120°	194.0	5.1
90°-150°	231.1	6.1
90°-180°	231.0	6.1
0°-180°	3797.9	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1226	1226	1226	1226	1226	
5°	1226	1224	1215	1225	1224	116
15°	1171	1172	1164	1171	1166	330
25°	1064	1067	1060	1065	1059	490
35°	921	929	926	929	929	576
45°	758	772	778	786	787	585
55°	583	602	621	635	639	521
65°	402	429	458	476	481	398
75°	221	252	291	315	321	234
85°	66	106	148	174	184	69
90°	19	58	99	126	135	13
95°	16	47	88	114	123	12
105°	11	30	66	90	99	11
115°	7	16	47	68	76	7
125°	5	4	28	47	53	4
135°	2	1	10	25	31	2
145°	1	0	0	6	11	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



TEST NUMBER: P242843

CATALOG NUMBER: S125DR-S1090D830-X4F0-XX-UDD-D-W

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1226.0	1226.0	1226.0	1226.0	1226.0
2.5°	1229.6	1227.2	1218.8	1227.2	1226.0
5°	1226.0	1223.6	1215.2	1224.8	1223.6
7.5°	1217.6	1216.4	1208.0	1216.4	1215.2
10°	1205.6	1205.6	1196.0	1204.4	1203.2
12.5°	1188.8	1190.0	1182.7	1188.8	1185.1
15°	1170.7	1171.9	1163.5	1170.7	1165.9
17.5°	1147.9	1150.3	1141.9	1147.9	1144.3
20°	1122.6	1125.0	1116.6	1120.2	1120.2
22.5°	1093.8	1098.6	1089.0	1093.8	1090.2
25°	1063.7	1067.4	1060.1	1064.9	1058.9
27.5°	1031.3	1036.1	1027.7	1031.3	1028.9
30°	994.0	1001.2	994.0	996.4	995.2
32.5°	960.4	966.4	961.6	964.0	962.8
35°	920.7	929.1	925.5	929.1	929.1
37.5°	882.2	889.5	888.3	893.1	891.9
40°	842.6	852.2	851.0	855.8	858.2
42.5°	799.3	812.5	816.1	822.1	822.1
45°	758.4	771.7	777.7	786.1	787.3
47.5°	716.4	728.4	738.0	750.0	752.4
50°	673.1	686.3	699.5	712.8	716.4
52.5°	627.4	644.3	661.1	675.5	677.9
55°	583.0	602.2	621.4	634.6	639.4
57.5°	537.3	560.1	581.8	596.2	599.8
60°	491.6	515.6	539.7	557.7	561.3
62.5°	447.1	471.2	497.6	518.1	522.9
65°	401.5	429.1	458.0	476.0	480.8
67.5°	359.4	385.8	414.7	436.3	442.3
70°	312.5	340.2	371.4	394.2	401.5
72.5°	266.8	295.7	330.5	355.8	360.6
75°	221.2	252.4	290.9	314.9	320.9
77.5°	176.7	212.7	248.8	275.3	280.1
80°	135.8	171.9	212.7	239.2	244.0
82.5°	98.6	137.0	179.1	204.3	214.0
85°	66.1	105.8	147.8	174.3	183.9
87.5°	42.1	80.5	121.4	149.0	157.5
90°	19.2	57.7	98.6	126.2	134.6
92.5°	16.8	51.7	93.8	120.2	128.6
95°	15.6	46.9	87.7	114.2	122.6
97.5°	14.4	43.3	82.9	108.2	116.6
100°	13.2	38.5	76.9	102.2	109.4
102.5°	12.0	34.9	72.1	96.2	103.4
105°	10.8	30.0	66.1	90.1	98.6
107.5°	9.6	26.4	61.3	85.3	92.6
110°	8.4	22.8	56.5	79.3	87.7



TEST NUMBER: P242843

CATALOG NUMBER: S125DR-S1090D830-X4F0-XX-UDD-D-W

CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	8.4	19.2	51.7	73.3	81.7
115°	7.2	15.6	46.9	68.5	75.7
117.5°	6.0	12.0	42.1	62.5	70.9
120°	6.0	9.6	37.3	57.7	64.9
122.5°	4.8	6.0	32.5	51.7	58.9
125°	4.8	3.6	27.6	46.9	52.9
127.5°	3.6	2.4	22.8	40.9	48.1
130°	3.6	2.4	19.2	36.1	42.1
132.5°	2.4	2.4	14.4	31.3	36.1
135°	2.4	1.2	9.6	25.2	31.3
137.5°	2.4	1.2	6.0	20.4	25.2
140°	1.2	1.2	2.4	15.6	20.4
142.5°	1.2	0.0	0.0	10.8	15.6
145°	1.2	0.0	0.0	6.0	10.8
147.5°	0.0	0.0	0.0	2.4	4.8
150°	0.0	0.0	0.0	0.0	1.2
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)